

BUSINESS WEEK

SEPT. 13, 1947



Greyhound's Arthur M. Hill: He'll chart the routes to national industrial preparedness (page 8)

A MCGRAW-HILL PUBLICATION





Why accumulation of capital should be encouraged

TO HEAR some people talk, the accumulation of capital out of profits as savings (the only way it can be accumulated) is wrong. Let's see.

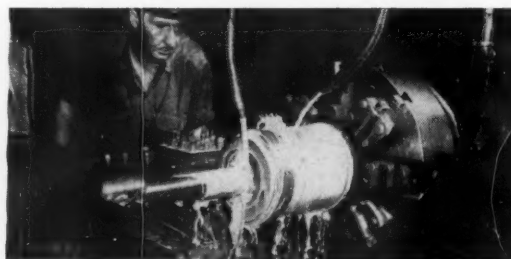
Capital is the tools you use. The blacksmith saved money and bought his hammer. Corporations collected the savings of thousands of people and bought millions of dollars of machines.

If the blacksmith couldn't have hoped for a return on his hammer investment, he wouldn't have bought it—he'd have spent the money and there would have been no place in that town for horses to be shod, no job for the blacksmith and his helper. If the investor in a corporation can't hope for a return on

his stock, he won't buy it—and there will be no jobs in that plant because there will be no plant.

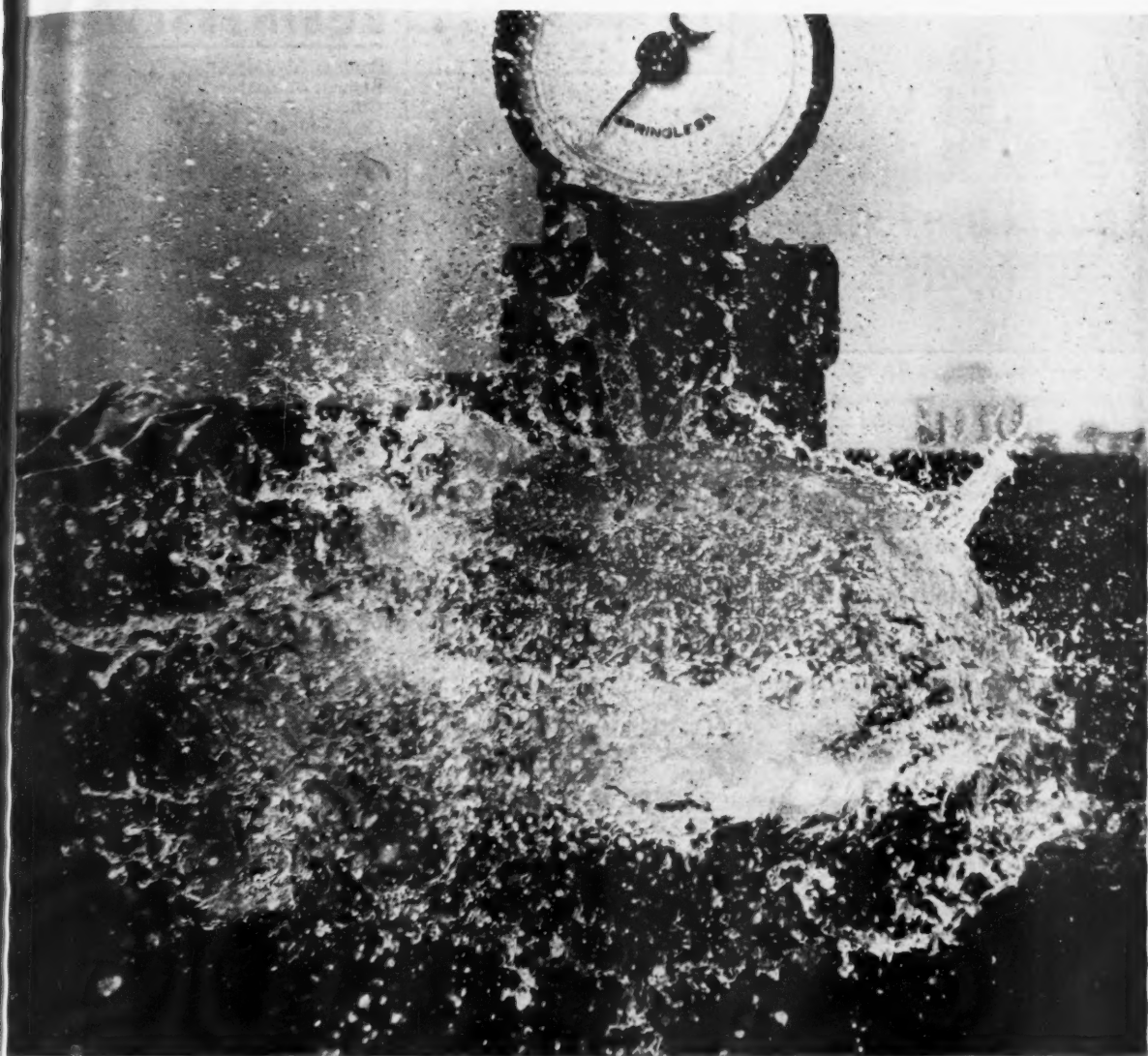
But, the theorists say, let the government provide the plants or take over the existing plants . . . (There are plenty of places where one or both have been done. Would you change places with the workers of those countries?)

A great labor leader knew what he was talking about when he said, "The worst enemy of working people is the corporation which fails to operate at a profit". He might have put it another way: "Anyone who tries to prevent a company from making a profit is directly attacking the workingman and his job security".



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29 gallons getting out of a 2-quart hot-water bottle

A typical example of B. F. Goodrich improvement in rubber

UNLESS you have a very bad toothache indeed, you'll never want to put 15 or 20 gallons of hot water in your hot-water bottle to soothe the pain. But you *could*—if it's a B.F. Goodrich bottle. It took 29 gallons to cause that burst you see in the picture.

Why should there be any need for rubber to stand such a strain? The stronger the bottle the longer it will last. But the strength must be uniform. If one little weak spot started to leak you'd have a soaked pillow which isn't funny when you're trying to get relief

from a bad head or tooth.

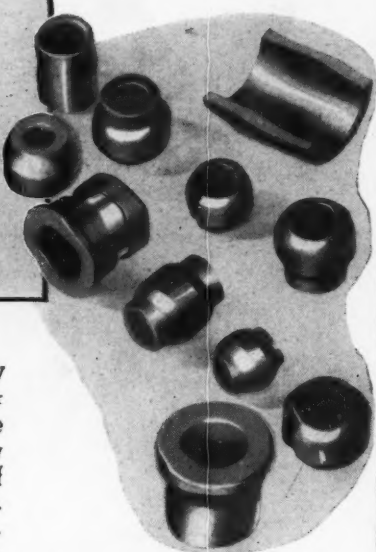
B. F. Goodrich engineers started out to develop a *uniformly* strong hot-water bottle. They wanted one that would stretch to several times its normal size without the slightest leak before it finally burst. Then they'd know it had no weak spots. That's the bottle in the picture. Before the burst the scale read 235 pounds. That's 116 quarts or 29 gallons in a 2-quart bottle, exactly like you'd buy in any drug store with the brand B. F. Goodrich or "Miller."

B. F. Goodrich engineers are con-

stantly at work this way to make everything "better than it has to be." Nothing is ever finished to them—they are always at work to find ways to improve belting, hose, adhesives, tank linings, packing—to make them last longer, stand harder use, cost less. That's why it pays to see your B. F. Goodrich distributor before you decide on *any* product made of rubber. *The B. F. Goodrich Company, Industrial Products Division, Akron, Ohio.*

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MANY products rely on Johnson LEDALOYL Bearings for their "built-in" lubrication. These bearings run quietly . . . smoothly . . . continuously for long periods of time . . . even when sealed in place. They are an outstanding development of powder metallurgy. Perhaps you, too, have a product which needs this type of bearing.

The application illustrated is a cream separator made by the American Separator Company. "Breakdown" tests showed about five years of normal use without sign of wear on either bearings or the shaft . . . with no additional lubrication. Such bearing service is due to the myriads of tiny oil wells . . . as many as 13,000 to the square inch . . . which supply the necessary oil when the machine is in use. When the bearing is at rest, the oil is reabsorbed by these pores. Thus you always have the right amount of oil in the right place, at the right time.

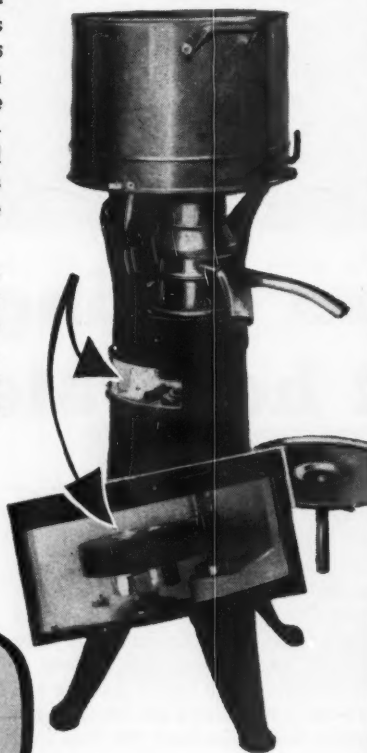
Manufacturers looking for ways to build greater performance into their products, at low cost, will do well to consult with Johnson Bronze. Remember, we make all types of sleeve bearings, and are ready to serve you now.

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WASHINGTON OUTLOOK

SERVICE

PRICE CONTROLS are not in the cards for the coming year. You can discount the talk from Washington.

To be sure, Truman's economic advisers would welcome positive control over key prices. They've felt the need ever since the indexes turned upward after the brief stable period of last spring.

But no one dreams that price control is practical politics today. The economists won't even bother to recommend it.

The one move the economists are pushing is to ease the price pressure on grains by reviving restrictions on industrial uses. The Dept. of Agriculture hasn't come around even to this.

There is this:

The White House looks for a long spell of rising prices—through next year and beyond. That means prices size up as good campaign material for next fall.

So don't be surprised if price control talk from New Dealers like Lucas and Kilgore is reinforced by sidewise references from the White House:

"Prices can be expected to rise further in the absence of positive price control"—that sort of thing. It's trial balloon stuff.

You can't exclude the possibility that Truman might even ask Congress for some authority over prices. He wouldn't really expect to get it. But he'd be making a record, pinning the blame.

SPECIAL SESSION OF CONGRESS?

Truman still hasn't made the decision. But Marshall is bombarding the U. S. S. Missouri with radiograms.

The State Dept. is convinced of the overriding need for a quick stop-gap ahead of the Marshall Plan. As they see it, both French and Italian Governments will fall before January, be replaced by Communist cabinets—unless help comes.

All the political advisers oppose a special session. Congress is dead set against any more emergencies; Vandenberg says he won't be stampeded by another cry of crisis.

And Democratic leaders warn that a call for blank-check aid now would jeopardize the Marshall Plan itself.

Decision will be tipped by the answer to this:

Can Truman finagle enough money without going to Congress?

Commodity Credit Corp. has \$500-million,

but this is money for crop price-supports. Agriculture officials fear what the farm bloc will say if they divert the money to buying for relief.

There's also the Export-Import Bank to draw on, perhaps even the World Bank or International Monetary Fund. Presumably these have enough cash to do the job (page 111).

BIGGEST POLITICAL NEWS

of the week is Jimmy Roosevelt's statement in a radio interview that Truman is carrying out F. D. R.'s domestic policies. Also, said Jimmy, no man can say today what F. D. R. would do about new international situations.

The story has been generally overlooked. But not by politicians.

Their interpretation: The Roosevelt clan has decided to stay regular, throw in for Truman. Jimmy's statement cuts ground from under those New Dealers who are saying Truman has abandoned F. D. R.'s principles.

That punctures Wallace's hope of starting a third party in California; Jimmy is state chairman there. Implications of that reach into G. O. P. ranks as well; the Republicans have been hoping Wallace would split off, make a G. O. P. '48 victory a cinch.

FINAL FEDERAL POWER COMMISSION O. K.

on permanent use of Big Inch and Little Big Inch pipelines for natural gas will come this month.

Certification of the right-of-way will be Texas Eastern Transmission Corp.'s signal to start pushing a third big line—to bring gas into East Coast markets.

Texas Eastern already has gas supply for the third—and payoff—line, and thinks it knows where the money is coming from. Steel, of course, remains the big problem.

MEXICAN CANNED BEEF

is being bought by Commodity Credit Corp. for resale to refugee organizations.

Behind-the-deal purpose is to reduce temptations among Mexican cattle speculators to introduce hoof-and-mouth disease among herds just across the border.

Nearest plague area now is 275 miles south of the border. But Mexicans have 750,000 disease-free surplus cattle just across from U. S. These are denied normal access to U. S. feedlots as a precaution against the disease invading the U. S.

If the disease shows up among the herds of

WASHINGTON OUTLOOK (Continued)

surplus stock, owners would figure on collecting U. S. indemnity for their slaughter—as in southern Mexico now.

DEMOCRATIC VICE-PRESIDENTIAL NOTE:

Before Labor Secretary Schwollenbach left on a speaking swing around the country, Truman told him that the race for his running-mate is still wide open.

Also, Truman said he favors a man from the West.

In other words: Judge, see what you can do for yourself.

RAY C. WAKEFIELD, until recently a member of the Federal Communications Commission, is in line for the vacancy on the Federal Power Commission.

Truman won't rename Burton N. Behling, whose nomination to FPC last spring was ignored by the Senate.

Wakefield's appointment offers the White House a double solution: It breaks the 2-2 deadlock on FPC, repays Wakefield for taking a bitter dose of political syrup without protest. Wakefield was routinely reappointed to FCC last spring. Then, as a political expedient, his appointment was recalled in favor of Ohio G. O. P. Rep. Bob Jones.

- Phil LaFollette didn't know it when he left for Germany, but he will be asked by Gen. Clay to take the job as director of Military Government for one of the three "states" in the U. S. zone. . . .

- Authors of the majority policy committee's "Story of the Eightieth Congress" resent the interpretation given their work by some readers: that it's a buildup for Taft (BW—Aug.30'47,p6). The authors see it as "a comprehensive survey of Congress in action under responsible Republican leadership". . . .

- Rep. Walter Ploeser's ballyhooed inquiry into the spread of co-ops may quietly fizzle out. G. O. P. leadership is worried over reprisal threats from powerful midwestern farm co-ops. . . .

- Clark's trust-busters are about ready to invade Wall St. with suits against investment brokerage houses. It will be a carbon copy of charges against the real estate men: uniform commissions. Also, dairy products have been picked as the first food-price case; action will come from Kansas City. . . .

- Phil Hannah is quitting as Assistant Secretary of Labor to return to his old job as secretary of the Ohio A. F. L. Bill Green will nominate a successor; A. F. L. isn't taking a walk out of the department.

PENTAGON BUSINESSMAN

A year ago—when, strange as it now seems, war looked more imminent to Washington than it does today—we said:

"Washington's ideas are beginning to cluster around the theme of industrial mobilization for war . . . Top policy men are thinking in terms of gearing industry for a quick shift back to a war basis . . ." (BW—Sep.14'46,p5).

One outcome of that thinking was the creation of the National Security Resources Board; Arthur M. Hill (cover) becomes its first head this month.

The men who inspired this board were veterans of the civilian side in the long dispute between WPB and the military over management of the war economy. They were men who anticipated early, drastic moves—"shadow" plants, relocation, capacity building.

So they wrote a law that gives the board as broad a job as its chairman chooses to do (BW—Mar.8'47,p16). The board reports directly to the President, is independent of the military establishment.

But the men who laid out the board this way aren't the ones who will run it. The atmosphere is different now.

In picking Hill, Truman accepted the nominee of Forrestal—new top man in the military. During the war, Hill was on Forrestal's staff at the Navy. And his new office will be in the Pentagon, near his wartime boss.

Hill believes that planning mobilization of the civilian economy ought to be closely woven with military planning.

Hill has no grandiose schemes. Rather, he will ease into this job problem by problem. He hopes to tackle each one by drafting practical young men from second levels of business.

He knows he can't keep such men long. Indeed, he welcomes the prospect of a continual rotation of personnel between industry and the new board.

Thus, he sees his own job as done once he has an initial staff nucleus squared away.

Hill's temperate approach is calculated to allay the fears of some businessmen, who felt that the do-it-now industrial mobilization thinking of a year ago would involve too much regimentation.

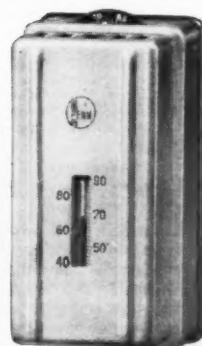
are all automatic controls ALIKE?



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REFRIGERATION CONTROL



DAY-NITE TEM-CLOCK



TEMTROL

All present-day automatic controls are good. They all perform similar functions . . . *but there are differences in controls just as there are differences in other mechanical products.*

They differ in appearance, mechanical and electrical design, materials used, ease of installation, their operating dependability and *in their accuracy in controlling automatic operations.*

For example, PENN Temtrol . . . the room thermostat with *the heat-anticipating feature* . . . assures maximum heating comfort by keeping room temperatures extremely close to the selected level. This is made possible by a design that introduces "artificial" heat within the thermostat. Thus the thermostat has the uncanny ability *to anticipate heat requirements before room tem-*

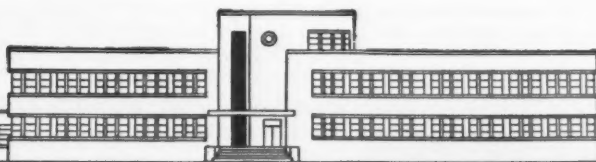
perature changes materially.

Then, there's PENN Tem-Clock. This electric clock provides *fully automatic control* of night setback temperature . . . resulting in greater comfort, convenience and fuel economy. It can be installed in any room desired by the purchaser, *regardless of the location of the thermostat.*

PENN 270 Controls for Refrigeration is a new and different line—*the first and only one in this field to feature a load-carrying, two-pole switch*—provides greater versatility, simplicity, efficiency and dependability.

"Extras" like these are found in all PENN Controls—whether in heating, refrigeration, air conditioning, engines, pumps or air compressors. *Penn Electric Switch Co., Goshen, Indiana.*

PENN



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Good-bye Grease Monkeys!

Now you can say, "Good-bye and good riddance to Grease Monkeys." Born with the Industrial Revolution in a jungle of pulleys, belts and line shafts, Grease Monkeys have always been expensive to support and even more costly to forget.

Unit drives and centralized lubrication simplified the job and saved money in industry. But as long as the heat of friction burned up or hardened greases and oils, Grease Monkeys were inescapable. Only permanent lubrication could make them extinct.

And the Silicone Oils and Greases made by Dow Corning have the ideal combination of properties for permanent lubrication. They are heat-stable, non-volatile, and they do not reduce to gums and sludges. Many people are already using our Silicone Oils and Greases to banish Grease Monkeys. Here is a recent example.



DC-33 Silicone Grease permanently lubricates the "Windial" made by the Friez Instrument Division of Bendix Aviation Corporation.

The "Windial" is set up high where the wind blows free—and it's hard to get at. It stays outdoors year after year in sun, rain, snow and ice. Temperatures may vary from -40° to 120° F.; speed varies from 0 to 2000 r.p.m. The best of the organic greases wouldn't last long under such conditions. That's why Bendix-Friez engineers tested and adopted DC-33 Silicone Grease for the annular ball bearings of the "Windial."

That's another bit of evidence to support our claim that permanent lubrication means Dow Corning Silicone Oils and Greases. Within five years your customers will be demanding permanent lubrication. It's none too early to start working with the DC Silicone Greases described in Data Sheet No. G 7-1.

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THE COVER

For A Peacetime WPB

The National Defense Act of 1947 created an organization that may have a vital effect on business. That is the National Security Resources Board, which will operate as a sort of peacetime WPB (page 6). It will begin to function officially when Arthur Middleton Hill is installed later this month as its chairman (BW—Sep. 6'47, p6).

• **Organizer**—If there is one outstanding quality that Hill brings to his new job it is his ability to organize to get things done. He earned this reputation in the transportation business—particularly as one of the pioneer operators of bus lines.

Born in Charleston, W. Va., 55 years ago, Hill spent much of his boyhood in Arizona. After graduation from Central Missouri State Teachers College, he went back to Charleston, for seven years engaged in banking. He quit to join the Army in World War I, serving as an officer in the 77th Infantry Division.

• **Change of Interest**—Back in Charleston after the Armistice, Hill became interested in transportation. He got a job as secretary-treasurer of the Charleston Interurban Ry. Co. (now the Charleston Transit Co.), is now its president. In 1924 he organized the Midland Transit Co., which he expanded into the largest bus company in West Virginia, and subsequently into Atlantic Greyhound, which covered most of the southeastern states.

And with it, Arthur Hill became a leading exponent of bus operation. His business interests expanded rapidly throughout the bus field. When the National Assn. of Motor Bus Operators was organized in 1927, he was named its leader, a position he still holds. Today he is chairman of the board of Atlantic Greyhound Corp., chairman of the executive committee and a director of the parent Greyhound Corp. He has been a director of the U. S. Chamber of Commerce.

• **Nothing New**—Jobs in national government posts aren't new to Hill. From 1933-35 he served as chairman of the NRA's Motor Bus Code Authority. During World War II, he was a special assistant to the Secretary of the Navy in charge of transportation; Navy Rubber Director; a consultant in the Office of Defense Transportation. Early this year he got a Medal of Merit for his services as Navy Secretary Forrestal's special assistant.

The Pictures—Press Assn.—17, 26, 86; Acme—20, 90; Int. News—44, 94, 97; European—108; McGraw-Hill—113.



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City	Population	Sq. Ft. Available
"A"	450,000	60,000
"B"	12,000	23,000
"C"	900	9,000
"D"	3,000	9,600
"E"	11,000	8,200
"F"	8,000	15,000
"G"	11,000	25,000

Write for confidential information about any of these, or state your requirements and we'll try to fill the bill. There is no obligation.



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BUSINESS WEEK • Sept. 13, 1947

BUSINESS OUTLOOK

BUSINESS WEEK

SEPTEMBER 13, 1947



This latest price spiral is hitting the consumer right in the pocketbook—hard. It's a dangerous thing out of which to make political capital (page 5). And Washington can stop the rise—without controls—if it wants to.

The whirlwind advance of the last few days is mainly in foods and food-stuffs. It was set off by the short corn crop. But prices would quickly reverse themselves if the government stopped buying grain.

Speculators have learned, these last two years, that the grain market is a one-way street. Washington buying makes that so.

From now on, the U. S. should buy on weakness, not on strength.

More careful U. S. buying would affect prices other than grains.

If livestock raisers know there will be enough grain to feed cattle next year—and that prices won't be sky high—they will plan large herds. Large herds will mean cheaper beefsteaks.

Similarly, assurance of a reasonable corn-hog ratio will mean more pigs. More pigs not only mean cheaper pork chops but also lard. If lard sells down, other fats and oils inevitably will follow.

Government not only has been bidding grain prices up; it has been talking other prices up at the same time.

When Washington officials talk about higher eggs and milk this winter and beef next summer, everyone raises his price ideas now. That's what swept food prices up last week and this.

It's quite proper for Washington to lay the food facts on the line. But the facts aren't all clear yet.

The government is basing its price guesses on grain exports that had been planned. But exports may have to be cut.

First off, domestic supplies must be kept adequate. This probably means a little less grain for Europe this winter than was scheduled. That, in short, may prove the price of preventing inflation at home.

If food keeps going up at this rate, there's no stopping wages.

Consumers haven't seen the worst of the price raises. Spot markets are up more than the boosts at retail.

For example, foodstuffs in the cash market have soared nearly 12% in less than three weeks. One single day—Tuesday of this week—accounted for nearly a quarter of that upsurge.

The housewife already is paying the new prices for butter and eggs. Other markups, however, are still in the making.

Wheat will be harder to pry out of granaries as time goes on. That is why Commodity Credit Corp. is pushing its purchases now.

It acquired 104-million bu. of wheat (or flour equivalent) in the first two months of the harvest season. That's a little over 20% of planned exports for the year ending June 30, 1948.

Including July 1 holdings of grain and flour, CCC has covered the export quotas through October with nearly 20-million bu. to spare. That's comfortable enough for now—but ability to buy enough to meet later quotas appears much more problematical.

Running food prices up now not only hurts the domestic consumer; it also limits the amount foreign nations can buy. And this current rise in

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
SEPTEMBER 13, 1947

foodstuffs tends to cut the purchasing power of each dollar Europe will gain through any Marshall Plan funds.

This country so far has been weathering a decline in exports without much effect on either business or prices.

Overseas shipments dropped 13% in value from May to June and another 7% in July. The drop probably would have been more but for loan promises.

In other words, our foreign customers feel free to spend the limited supply of dollars they have left. They figure to borrow a new supply later—even though each new dollar may not go as far as the old.

But lower exports can affect commodities that aren't short here. Cotton prices slumped as sales abroad declined (page 42).

The huge "favorable balance" in U. S. overseas trade so far this year has been bad for everybody involved, and here's why:

(1) It drained other nations of dollars to spend in this country.

(2) It took scarce articles out of the home market without an equivalent amount of imports to replace them.

Here's the way point No. 2 works. We produce and sell abroad. That creates purchasing power at home. But we don't import things to sop up that purchasing power. So hot dollars chase prices up the spiral.

Nations buying in the United States choose to spend the dollars they can scrape up for machinery and vehicles rather than consumers' goods.

Final figures aren't available for July; but preliminary totals indicate that exports of passenger cars and industrial machinery made good gains while most other exports were falling off.

The basic strength of American business is certainly demonstrated by events of the last few months.

Not only has the expected decline in exports started, but the end of inventory accumulation came simultaneously (page 19). It had been feared that either development might cause a business slump.

And what happened? Both began to be felt in June, became more evident in July. Yet personal incomes in this country hit a record annual rate of \$195-billion in June, then rose further to \$197-billion in July.

Meanwhile, industrial output did not rise to match these individual incomes. That added just so much more to the inflationary potential.

This week's official crop report isn't going to do anything to help drive prices down.

At the same time, there weren't any surprises in the estimates. The late grain crops have suffered some slight further damage from August's unfavorable weather.

The corn harvest now is expected to be 2.4-billion bu. That's down 260-million bu. from the Aug. 1 estimate and 900-million bu. below 1946. But it's a shade better than a private crop report circulated earlier.

The spring wheat crop also has slipped by about 20-million bu. and now is expected to yield 312-million bu. This, nevertheless, would top 1946 by 30-million bu. and is substantially above average.

Soybean prospects are down 7-million bu. to 181-million.

FIGURES OF THE WEEK

THE INDEX (see chart below).

PRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
Steel ingot operations (% of capacity).....	84.3	92.4	93.2	88.5	97.3
Production of automobiles and trucks.....	84,516	†88,098	79,452	72,535	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$22,405	\$18,543	\$16,782	\$15,179	\$19,433
Electric power output (million kilowatt-hours).....	4,721	4,940	4,874	4,184	3,130
Crude oil (daily average, 1,000 bbl.).....	5,173	†5,157	5,105	4,800	3,842
Bituminous coal (daily average, 1,000 tons).....	2,005	†2,000	1,950	2,094	1,685

TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars).....	88	85	85	87	86
All other carloadings (daily average, 1,000 cars).....	66	65	68	64	52
Money in circulation (Wednesday series, millions).....	\$28,749	\$28,302	\$28,206	\$28,506	\$9,613
Department store sales (change from same week of preceding year).....	-2%	-5%	+1%	+45%	+17%
Business failures (Dun & Bradstreet, number).....	60	64	60	14	228

PRICES (Average for the week)

Spot commodity index (Moody's, Dec. 31, 1931=100).....	427.5	420.0	424.5	327.0	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)....	266.8	264.6	270.0	203.5	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)....	382.6	376.2	372.6	289.1	146.6
Finished steel composite (Steel, ton).....	\$75.41	\$75.41	\$75.41	\$64.45	\$56.73
Scrap steel composite (Iron Age, ton).....	\$37.75	\$37.83	\$40.42	\$19.17	\$19.48
Copper (electrolytic, Connecticut Valley, lb.).....	21.500¢	21.500¢	21.500¢	14.375¢	12.022¢
Wheat (Kansas City, bu.).....	\$2.54	\$2.43	\$2.29	\$1.94	\$0.99
Sugar (raw, delivered New York, lb.).....	6.32¢	6.32¢	6.32¢	4.20¢	3.38¢
Cotton (middling, ten designated markets, lb.).....	32.22¢	32.46¢	35.16¢	36.48¢	13.94¢
Wool tops (New York, lb.).....	\$1.749	\$1.745	\$1.680	\$1.330	\$1.281
Rubber (ribbed smoked sheets, New York, lb.).....	15.84¢	15.17¢	15.01¢	22.50¢	22.16¢

FINANCE

10 stocks, price index (Standard & Poor's Corp.).....	119.7	121.6	124.7	127.9	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's).....	3.18%	3.18%	3.16%	3.06%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's).....	2.57%	2.56%	2.55%	2.55%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average).....	14-14½	14-14½	14-14½	14-14½	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	1%	1%	1%	¾-¾	¾-¾

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	46,954	47,095	46,809	45,770	††27,777
Total loans and investments, reporting member banks.....	63,799	63,730	63,629	67,420	††32,309
Commercial and agricultural loans, reporting member banks.....	12,518	12,406	12,092	9,570	††6,963
Securities loans, reporting member banks.....	2,141	2,162	2,095	3,346	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks.....	38,354	38,400	38,735	45,795	††15,999
Other securities held, reporting member banks.....	4,233	4,237	4,232	3,972	††4,303
Excess reserves, all member banks (Wednesday series).....	840	850	810	778	5,290
Total federal reserve credit outstanding (Wednesday series).....	22,623	22,478	22,211	24,011	2,265

††Primary, week ended September 6th.

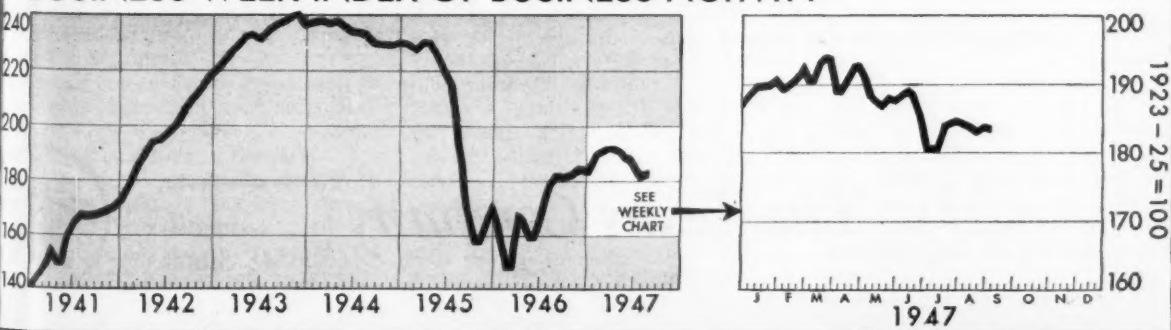
†Revised.

‡Ceiling fixed by government.

††Estimate (B.W.—Jul.12'47,p.16)

§Date for "Latest Week" on each series on request.

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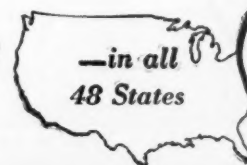
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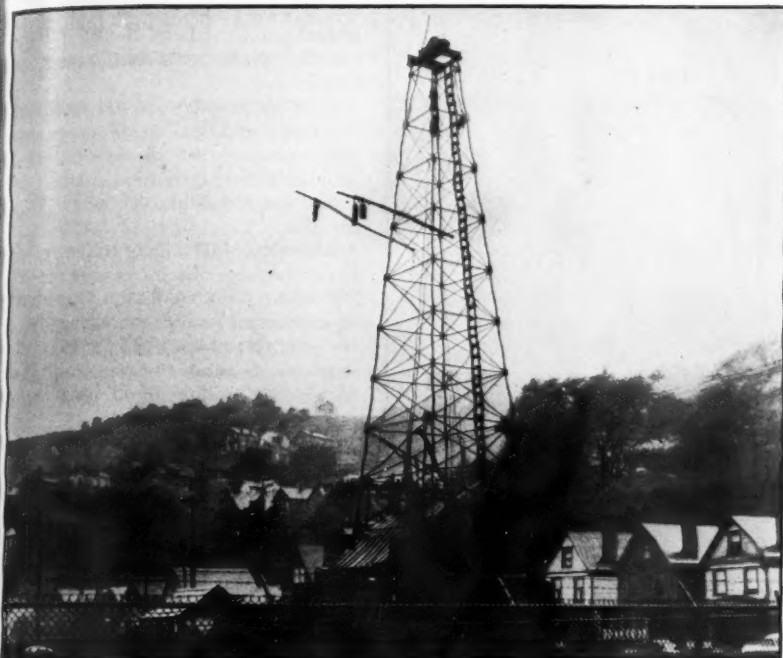
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The Texas Company





A DRILL PROBES—for gas in Pittsburgh, a Westinghouse measure against a shortage

All Fuels Will Be Short

Many users of oil, gas, coal, electric power face pinch as peak-use season nears. Facilities are being expanded, but can't keep up with demand. Severe winter could have crippling effects.

As the nation heads into peak fall and winter industrial activity, fuel supplies are causing more and more shivers. Viewed from any angle, the outlook for gas, oil, coal, and electric power is bleak.

Spot shortages appear certain. Whether there is downright suffering and extensive crippling of plant depends largely on the severity of the winter. The situation is shaping up like this:

- Oil and gas shortages may hit industries in many sections of the country. This is particularly true in the Midwest, which depends heavily on presently inadequate overland transport from the Southwest.

- Electric power may be insufficient to meet peak demand in some areas (BW—Aug. 9 '47, p. 17). Emergency measures to level off peaks are in the cards.
- Coal users, comparatively, seem to be in the best position, but even that is wobbly.

- Race—Gas, oil, and power people have been working like beavers to expand facilities, still they haven't been able to match unprecedented peacetime

demand. Shortages of materials, chiefly steel, have kept them from building oil and gas pipelines, refineries, electric generating plants fast enough.

Gas utilities hope to put in \$1-billion in facilities this year. The oil industry has a \$4-billion, two-year expansion program under way. Electric utilities are planning to spend \$5-billion in five years.

In the case of coal, the major obstacle is lack of cars to transport the fuel from mines to consumers, and the freight-car building program is running far behind schedule.

- Demand—But consumer demand isn't waiting on additions and improvements. Gas utilities sold a 10.4% bigger volume of gas in the year ended July 31 than in the preceding 12 months. Petroleum products consumption in the first half of 1947 was 10.1% above the first half of 1946; early this year oil economists had expected 1947 demand would be only 4% over 1946. Electric power output historically reaches its peak in

December; this year output in the week ended Aug. 23 topped the 1946 high in the week ended Dec. 21, 1946 (chart, page 16). Railroads are short 18,000 cars to transport coal; a year ago it was 14,000 cars.

Neither suppliers nor industrial consumers are resigning themselves to the inevitable. They are resorting to all kinds of improvisations and emergency measures to forestall—or at least relieve—possible shortages. Here is the broad look at each of the fuels:

- Coal—If the current bituminous production rate (12,030,000 tons a week) can be kept up, output for the last four months of 1947 should total around 200-million tons. Demand probably will run higher than that—how much is anybody's guess. If the spread is not too great, stockpiles probably can be used to make up the deficit. But shortages in other fuels may cause a bigger drain on coal. If it becomes too heavy, coal users will find their luck running thin.

Whether coal output can go much beyond present levels depends largely on the car supply. Some mines are operating only part time, unable to get enough cars to ship more coal.

- Car Conservation—The Office of Defense Transportation is doing what it can to increase the car supply. It has reduced to 20,000 the daily supply of cars carrying coal to lower Great Lakes ports for transshipment to upper lakes ports; formerly there were 22,000 to 26,000 cars. Hampton Roads, with a bank of 12,000 cars a day for water shipment of coal abroad and coastwise, has been cut to 10,000.

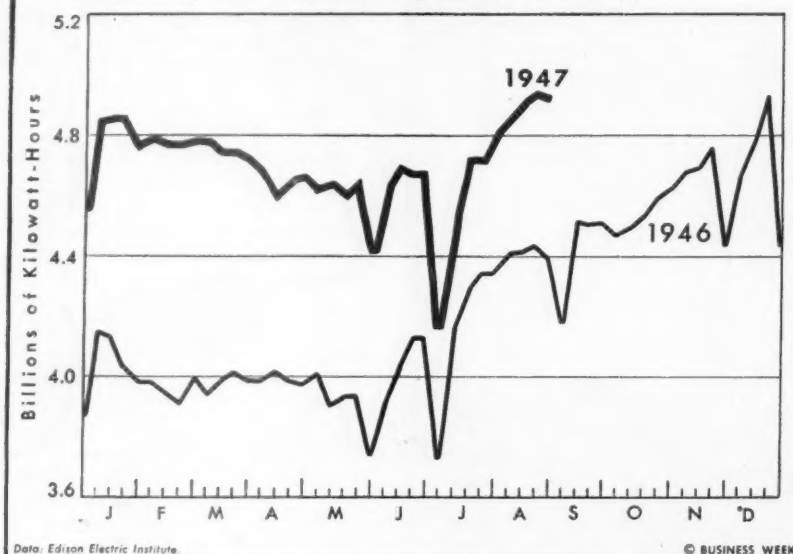
This saving of 4,000 to 8,000 cars a day is not all going to coal shipments, however; it simply means more open top cars are available for all shipments requiring that type of equipment—building materials, ore, steel products, as well as coal. Some may go to help move the sugar beet crop, largest in recent history, which is now being harvested in the West.

- Trouble—Meanwhile, some coal users already are having trouble. TVA standby plants need coal to offset low water at various dams. The Jacksonville (Fla.) city gas works is very low on coal. Bethlehem Steel Co.'s three plants at Steelton and Bethlehem, Pa., and Sparrows Point, Md., have an average supply of only eight days; and the Sparrows Point plant supplies Baltimore with gas. Carnegie-Illinois Steel is worrying about the low supply at Gary, Ind.

- Oil—While the petroleum industry got through the summer with only spot

THE ELECTRIC POWER PROBLEM:

Demand pushes output above last winter's peak—and this year's December top has still to be met



shortages of gasoline (BW—Aug. 30 '47, p19), tougher times lie ahead.

Refiners are trying to build up light fuel oil stocks before cold weather strikes. At the end of August they totaled 54.8-million bbl.—about 1-million bbl. more than a year ago, but small in relation to the greatly increased demand. In some areas fuel oil prices have been raised to encourage output at the expense of the normally more profitable gasoline (higher prices may also help cut back demand).

Shortages in the Midwest may be more widespread this winter than last spring. The West Coast can take care of its needs, oil men believe. The East is likely to be adequately supplied by its own refineries and by shipments from the Gulf Coast.

• **Gas**—Despite the multimillion-dollar construction program of the gas industry, the acute shortage of this fuel in the East and Midwest will get worse before it gets better. Industry and government experts gloomily predict that it will take at least four years to complete enough natural gas pipelines to meet even present demand.

During the year ended June 30, gas pipeline companies got federal authority to spend \$273,190,302 for facilities to carry gas from Southwest production areas to consuming regions. Of this amount, 94% will be spent on 29 big lines spanning 4,643 miles. But not one of these lines will be completed this year. The pipe simply isn't available. Furthermore, the industry has not caught up on the previous four years' building programs. Only major additions in recent years have been the Big Inch and Little Inch, converted from

oil to gas carriers (BW—Feb. 22 '47, p22).

• **Oversold?**—In the cities themselves, utilities have been unable to expand gas storage and distribution systems to meet demand. Many utilities will confess they have oversold themselves, taken on more customers than they can handle. Some defend their position by claiming they are powerless, under existing regulations, to refuse service to anyone who wants it.

Months ago many gas utilities in shortage areas of the East and Midwest began turning down new customers (BW—Dec. 14 '46, p21). As events transpired, this only served to prevent a situation from becoming worse. Big industrial users still had their supplies cut off during cold spells, when there wasn't enough gas for both industrial and heating purposes.

Since then, some plants have attempted to install standby equipment. Favorite policy has been to turn to fuel oil. In the heavily industrialized Pittsburgh area, for example, more than 100 have tried to get oil standby equipment. But because of the shortage of both fuel oil and equipment, not more than half are expected to be successful. A few have resorted to propane gas. But this gas must be shipped by tank car, and tank cars are scarce.

• **Electricity**—Within a month the electric power industry may experience the first week in its history in which output reaches 5-billion kilowatt hours. During the first half of 1947, the electric companies added 1,102,000 customers, raising the total to a record 37,242,938. And in that same period, electrical appliance sales by manufacturers also soared.

While demand for juice is running

10% over 1946, capacity has been expanded only 3%. (At the end of July capacity was 50,718,540 kw.; at the start of 1947 it was 50,303,660 kw.) How much additional capacity can be added during the rest of 1947 is conjectural; some experts doubt if the increase for the year will exceed 1-million kw.

Another bugaboo is old equipment. High demand has made maintenance difficult. Last month a boiler at the Boonville (Ind.) municipal plant blew through a wall and took 2,800 kw. off the line.

• **Remedies**—But the industry does have a number of remedies. It is increasing capacity, even at a sacrifice of profit. It can interconnect various utility systems to spread the load; it can reduce demand in various ways. And it can also reduce voltage on its lines to some degree.

Typical of utilities increasing capacity without regard to profit is Northern States Power Co., whose system stretches from South Dakota across Minnesota into Wisconsin. At the outer edges of its network it is installing 30,000 kw. of diesel-driven units in sizes of 1,000 kw. or less. These will provide power during peak demand periods.

Florida Power & Light Co., Florida Power Corp., and Pacific Gas & Electric Co. are dickering with the Maritime Commission for lease of surplus tankers. These could be spotted along the coast and their power plants tied in with existing systems. Other utilities are putting in 10,000-kw. units in multiple rather than waiting to get larger units which take longer to erect.

Utilities that have avoided interconnections to keep from coming under Federal Power Commission jurisdiction are appealing to FPC for emergency permits. Already five power systems have done so.

• **Chopping Demand**—Reducing demand is more difficult. Florida Power & Light is conducting an advertising campaign, urging customers to use gas and oil heating instead of electric space heaters. Pacific Gas & Electric Co. has cut off surplus power sales to chemical companies. In Seattle, rates for electric house heating are being boosted to discourage such use.

As last resorts, utilities can refuse to connect additional customers, or limit use of electricity during daily peak demand periods. A brownout for an hour or two in the early evening would fall into this category.

• **Panorama**—Viewing the overall situation, experts have one kernel of consolation: Everyone is aware of the problem. It has been well-publicized and widely-discussed. If trouble comes, it will not be for lack of foreknowledge—and the experts hope—adequate preparation.

Taft-Hartley Foe Loses

Labor-backed candidate trounced by G.O.P. in Pennsylvania by-election, despite last-minute broadening of issues. Results set men to pondering soundness of '48 political plans.

The Taft-Hartley law—as a vehicle for labor politicians in '48—hit a bump at its trial run in Pennsylvania this week. In a by-election in the Eighth district, the Republican nominee, Franklin H. Lichtenwalter, soundly denounced his Democratic opponent, Philip H. Storch, whose forte had been opposition to the T-H law.

Solid G.O.P. Margin—The vote was 7,780 for Lichtenwalter, 30,178 for Storch. In the 1944 election, the Republican margin in the same district had been smaller—16,424. Naturally the Republicans were jubilant, hoping the results would strengthen them elsewhere.

Storch, president of the Lehigh Valley unit of the American Newspaper Guild (C.I.O.), promised the voters he would work for repeal of the new labor law. C.I.O., A.F.L., independent unions, and railroad brotherhoods backed him, stumping firmly against the record of the 80th Congress under G.O.P. control, with particular emphasis on labor legislation. Lichtenwalter, speaker of the Pennsylvania legislature's house, asked only that the T-H law be given a fair trial.

Consolation—Labor leaders are now consoling themselves with this thought: Maybe it was just too early—rank and file members haven't felt much pinch from the law yet. Even during the campaign unionists had spotted weaknesses in their pet issue, had tried to expand the campaign to include prices and housing.

On the other hand, only the naive could bet that labor will now drop its anti-T-H political plans. There may have to be revisions, spicing with new favors. But that labor will junk the issue on the basis of this test alone seems out of the question.

In backing Storch, labor had much to gain, little to lose. The district is traditionally Republican anyhow. If Storch and his platform won—fine; his victory would have provided ammunition for battles elsewhere. If he lost—as he did—labor could always use the Republican "machine" and conservative Pennsylvania farmers for alibis.

G.O.P. Angles—But the Republicans have some sharp angles, too. In industrial Allentown, Storch surprisingly ran 403 votes behind Lichtenwalter. The G.O.P. thought it also spotted some internal cracks in the labor-Democratic coalition. For example, the union-dominated Storch contingent had set up its



LOSER AND WINNER: Labor's Phil Storch (left), G.O.P.'s F. H. Lichtenwalter.

own headquarters. This didn't sit too well with some old-line Democrats. And it left an opening for G.O.P. charges that the campaign was in the hands of "C.I.O. carpetbaggers."

Lichtenwalter becomes successor in Congress to Rep. Charles L. Gerlach, who died last May.

Duesenberg Car To Be Made Again

The luxury automobile of the booming twenties was the fast and fancy Duesenberg. Because of its class, the high-priced car was the favorite plaything of Hollywood, European royalty, and scions of millionaires. Because of its speed (129 m.p.h.), it was the favorite of bootleggers who needed something good and fast to outrace the revenuers.

Revival—Now plans are under way to resume production of the car for the first time in ten years. In 1937, the remains of the Duesenberg business, consisting chiefly of a supply of parts, was sold to the Auburn Cord Duesenberg Co. at Auburn, Ind. Now Auburn has sold all its Duesenberg assets to Marshall Merkes of Chicago, formerly a manufacturer of motorcycle parts. Merkes has retained August Duesenberg to head up redesigning of the new car.

Merkes plans to start with the last model, revamp from the ground up. The car will have an eight-cylinder engine

with injection-type fuel feed. It will develop considerably more than the 265 hp. of the last model.

Price—The new car can't possibly sell for less than \$25,000, says Merkes, and probably will cost more. But he confidently believes that more Duesenbergs can be sold than the firm can make. Merkes says that output may not exceed six cars the first year. After that, the range will probably be between 25 and 50 annually.

Merkes figures that development costs for a year will run to about \$100,000. This will be put up by Duesenberg enthusiasts like himself (he owns three). After the first engine has been built and tested, it will cost \$1-million to set up manufacturing facilities. This will be raised by a stock issue.

Sears, Ward Bring Back Second-Line Tires

Last spring Western Auto Stores led the first postwar break in tire prices (BW—May 31 '47, p17). Then, early this summer, the supply chain stepped out in front again: It sponsored the postwar debut of the second-line tire, which it sold at a lower price than it charged for its new deluxe tire.

Sears, Ward Follow—Last week Sears, Roebuck & Co. followed the lead. It introduced a tire that retails at \$10.45 (plus 10% federal excise tax) at Chicago. The Allstate, Sears' first line, continues to list at \$12.95.

Meanwhile, Montgomery Ward & Co. had entered the market by introducing a bigger and better first-line tire which it tagged with its top list price of \$12.95. Then it knocked 10% off the price of its previous "best" 6.00x16, offers it now for \$11.65.

Price War Unlikely—The introduction of second-line tires usually indicates a return to a normal competitive market. But any price war is highly unlikely now: Replacement tire sales this summer are breaking all records (except the 1946 banner year, when a 54-million-unit high followed the four-year tire drought). Trade experts had forecast a 35-million to 40-million year for 1947. Now estimates put this year's replacement business at nearly 45-million tires.

Makers of big national brands so far haven't budged toward bringing in second-line tires. Reason: The tire market is firmer now than it has been in months, and there is no indication that another wave of price cutting is in the offing.

Four Factors—There are four major factors in the summer bulge in tires sales:

- More cars are on the road;
- They are being driven more miles, as

indicated by peak gasoline consumption;
 • Bad weather and a late spring got the tire-buying season off to a bad start;
 • Prolonged heat waves have taken a high toll of tires.

Commenting on the last point, one sales executive said: "It's been a rough summer for those who can't stand heat. But it's been a tire man's dream. Nothing helps his business like hot weather."

West Still Fighting on Colorado Water Split

One of the biggest state fights in the West is how to divide the waters of the Colorado River (BW—Jul.20'46,p35).

After nearly thirty years of work the job looks no nearer to solution now than in the past. The question is sure to get major attention at the National Reclamation Assn. meeting in October in Phoenix. But oldtimers are predicting that it will be a long time before final agreement is reached.

• **First Approval**—In 1922, the seven states of the basin approved the Colorado River compact that authorized construction of Boulder, Parker and Davis dams. It was also agreed that 7½-million acre-feet of the river's water should be allocated to the upper basin area—Wyoming, Utah, Colorado, and the northern tips of Arizona and New Mexico. Further, the lower basin, which includes large areas in Arizona, California, New Mexico, and Utah, was to receive a share of water.

Since 1922, construction of Boulder and Parker Dams and the start of Davis Dam is about all that has been accomplished for everyone in the basin.

• **Inventory**—In the meantime, the Dept. of Interior has prepared a comprehensive inventory of all proposed projects for developing the water and related resources of the Colorado basin. This report stressed that there was not sufficient water for all the proposed developments.

The Bureau of Reclamation is now working on engineering and economic studies of the suggested developments. Nevertheless, until the states reach some agreement on its final distribution, the best use of the water will not be obtained. Meanwhile, a severe water and power pinch prevails in several areas of the basin.



DESERT GIANTS, built by Seattle's Kenworth Motor Truck Corp. for use in the Arabian wastes, are tested near Yuma, Ariz.



Tackling Pipeline Job in Middle East

Sometime this November, the Trans-Arabian Pipe Line Co. (nicknamed Tapline) will bed down the first lengths of pipe in its ambitious project, which will stretch 1,030 miles across the Saudi Arabian desert wastes.

The last joints will be fitted in late 1949 or early 1950; then some 300,000 bbl. of crude oil a day will flow from the Abqaiq oil fields to the ancient Lebanese port of Sidon. That's just the initial capacity of the huge line. But even so it will substantially surpass the 80,000 bbl. now carried daily by the Iraq-Mediterranean line of the Iraq Petroleum Co.

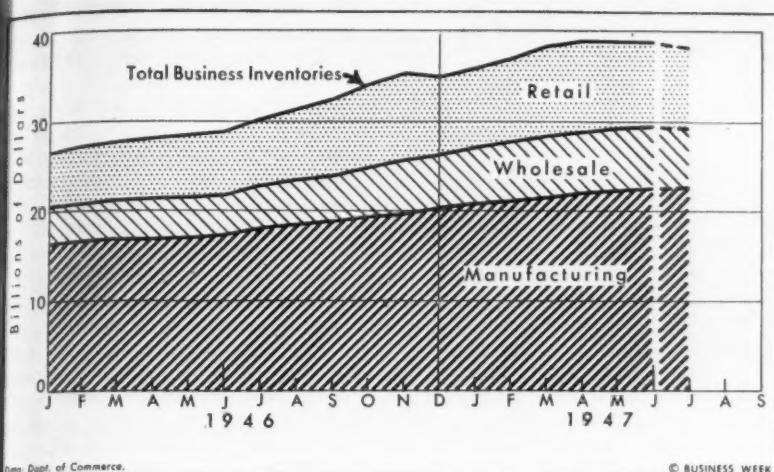
• **Partnership**—Original partners in the exploitation of Arabia's vast oil riches were Standard Oil Co. of California and Texas Co. Eight years ago they set up Arabian American Oil Co. (Aramco). Currently its three oil fields and two refineries produce 263,000 bbl. a day. When it starts supplying oil to Tapline,

Aramco will have upped this to 500,000 bbl.

Recently the Aramco partners also cut Standard Oil Co. (N. J.) and Soco Vacuum Oil Co. into the deal (BW—Dec.21'46,p19). All four are underwriting the \$125-million which Tapline borrowed from eight insurance companies to finance the big construction venture.

Tapline's project is one of the largest ever attempted by private concerns. Five contractors are now drilling new wells at Abqaiq. Another half-dozen will work on the 30-in. and 31-in. pipeline, other installations, and port facilities at Sidon. New equipment had to be designed before work on building the line could start in earnest (pictures).

When completed, it will cut out the present expensive tanker haul from the Persian Gulf to the European market, some 3,600 miles by way of the Mediterranean.



Inventory Surge Levels Off

For a while, big increase in stocks looked as though it might throw business for a loss. But stepped-up purchases by consumers and foreign nations after Easter slump was enough to take up slack.

The greatest inventory boom in history has finally run its course—at least for the time being. And it has ended without throwing business for a loss the way some economists thought it might. **No Change**—The Commerce Dept. came up this week with preliminary estimates that show no change in total manufacturers' and wholesalers' inventories during July. So total business inventories probably added up to around \$38.5-billion. That's almost 2% under the record high of \$38,852,000,000 recorded at the end of April.

The decline marks the end of the big surge in buying which added \$12.5-billion, or 50%, to the value of business inventories between V-J Day and the end of April. A big part of the climb was due to higher prices, of course. Wholesale prices are up by more than 40% from the V-J Day level. So the physical volume of inventories is just about a third above the V-J Day level. But that's still a big increase in anyone's book.

Comparison—As far as it is possible to tell, inventory buying stopped before inventories got out of line with sales. There is no simple mathematical relationship between inventories and sales. But it's possible to get some idea of whether inventories are excessive by comparing present inventory-sales ratios with typical ratios in the past.

Thus retail inventories have typically amounted to one month's sales plus about \$1-billion. June sales ran to \$8.8-billion as against end-of-June inventories of \$9.4-billion. So the current ratio is well in line with past experience.

It's the same story with wholesale in-

ventories. The typical relation places inventories at 40% of monthly sales plus \$2-billion. July inventories of \$6.7-billion are thus about in line with sales of \$11.9-billion.

Three Components—Manufacturers' inventories are usually broken down into three components—raw materials, goods-in-process, and finished goods—to see whether they are getting out of line. Raw materials inventories usually amount to 50% of monthly sales plus \$2-billion. Goods-in-process inventories run to 40% of monthly sales. So end-of-June inventories of raw materials and goods-in-process, which are estimated at \$15.6-billion, are about in line with the \$13.6-billion of sales.

In the case of manufacturers' stocks of finished goods, Commerce Dept. experts figure that \$8.5-billion to \$9-billion in present prices would restore physical stocks to their prewar level. The end-of-June figure for finished goods stocks was \$7.1-billion, so things seem well in hand.

The fact that the over-all inventory figures are in line with sales doesn't mean that all inventory problems have been solved, however. Individual companies may still be far out on a limb. And a decline in sales might force others to liquidate stocks. But totals show that the kind of speculative inventory building that brought trouble in 1920 and 1937 isn't important today. That's a key reason why the much-advertised business recession hasn't hit yet.

False Alarm—At the turn of the year, business analysts were viewing with great alarm the huge increase in inventories during the last half of 1946. Busi-

ness added to stocks at a \$5.5-billion a year clip in 1946's closing months. Everyone knew that such a rate could not be held long. And many soothsayers thought inventory buying would be chopped off so abruptly that business would be thrown into a tailspin.

But because most businessmen kept an eye on the inventory ball, it didn't work out that way. When Easter sales failed to measure up to advance guesses (BW—Apr. 5 '47, p15), retailers cut their orders from wholesalers. By so doing they kept stocks from piling up while sales leveled out. As a matter of fact, retail inventories of soft goods declined from \$6.2-billion at the end of March to \$5.8-billion on June 30—and the stock-sales ratio dropped.

Wholesalers lost no time in cutting orders from manufacturers. Their stocks are down about a \$100-million from the end-of-April peak of \$6.8-billion.

Leveling Out—Manufacturers' finished goods stocks began to pile up, particularly in soft goods lines. But the increase was checked before it reached alarming proportions. In the meantime, manufacturers cut down stocks of raw materials and goods-in-process. So total inventories of manufacturing plants almost leveled out in July.

Net result was that business purchases to build inventories tapered off gradually over a six-month period. Consumers and foreign nations stepped up their buying fast enough to take up the slack. Thus the drop in business activity which some economists had predicted when pipelines were filled didn't take place.

Headaches Still Possible—Nevertheless, it is still possible for inventories to produce a lot of severe economic headaches. If business activity should decline because of a drop in exports, for instance, a widespread movement to liquidate inventories could develop. This would cut demand and give business a severe jolt. On the other hand, there is always the possibility that the inventory boom was merely marking time in June and July. If so, there still may be the kind of inventory speculation that characterized previous booms. But few experts think there is more than an outside chance of this happening.

COAL FOR WEIRTON

The National Steel Corp. announced this week that it will have a new coal mine operating in the Morgantown (W. Va.) area by 1950. Output will go exclusively to the Weirton Steel Co., subsidiary of National.

The mine will be the third started in the industrial district in recent years. Like the others—Robena, of U. S. Steel's H. C. Frick Coke Co. (BW—Jul. 26 '47, p18), Mathies of Pittsburgh Consolidation Coal—it will be completely mechanized.

Pottery Makers Go Modern

Industry, once entirely handcraft, mechanizes to cut costs, improve quality, protect itself from possible foreign competition—particularly Japan, which undersold U. S. makers before the war.

From the dawn of history, pottery making has been a handcraft industry. Production volume and costs have been dependent upon the skill of the artisans who shaped, decorated, and fired the plates, cups, or teapots.

• **Change**—Today, however, mechanization is creeping into American potteries. Remembering the havoc that imported Japanese dinnerware wreaked on their trade in the 1930's, U. S. producers are sponsoring a minor production revolution in their industry. Their object: to cut costs, improve their product, protect their market now that foreign competition may reappear.

Center of America's commercial pottery industry is East Liverpool, Ohio. People in that city of 28,000 well remember what happened to their business when the Japanese offered a 94-

piece dinnerware set (a service for 12) for less than \$12 wholesale. That was under the bare manufacturing costs of U. S. makers.

• **Boycott**—More to direct attention to their plight than to cause Japan any financial embarrassment, shoppers in that region boycotted Japanese goods. It gained publicity, but solved no problems; modernization and mechanization were vital to U. S. potteries.

And now modernization efforts are beginning to bear fruit. Practically every major potter has engineers at work trying to devise new methods to cut costs.

• **Sample**—Typical of the accomplishments are those of the Homer Laughlin China Co., largest dinnerware producer in the U. S. Mechanization at its five plants at Newell, W. Va. started years ago. First improvement was installation

of material-handling devices. That is still far from finished.

Then the firm's special engineering department designed an automatic glazer. This machine forms flatware, but its uneven edges, dries it, and makes it ready for its first firing. Laughlin has three such jiggers operating, is preparing to install more. Up to 240 dozen dessert dishes, or 180 dozen full-size dinner plates, are produced in an hour by a two-man crew on such a jigger. A four-man crew can make 35 to 40 dozen plates an hour by hand.

• **Glaze**—A mechanical dipper carries flatware through a glazing spray and a drying oven at a rate of 1,500 dozen an hour. A good hand dipper could turn out no more than 800 dozen a day.

Artisans who put the gold or silver lines on the outer rims of flatware could complete as many as 200 dozen a day each. A "liner machine," with a crew of three, handles 150 dozen an hour.

Pitchers, gravy boats, and similar pieces can't be formed on jiggers. But T. S. & T. China Co., East Liverpool, has made considerable progress in developing a machine to cast these pieces.

Fuel is a major item in dinnerware production (one reason for the East Liverpool region's growth is its proximity to West Virginia natural-gas fields). Allied Engineering Co., Cleveland, has devised a burner system for pottery kilns which, it says, saves up to 25% in fuel costs.

• **The Job Ahead**—Pottery makers and their engineers know that much still remains to be done.

• They would like to find a way to speed up loading the cars which carry dinnerware through the glaze firing operations. Today's practice of hand-loading varies little from that used centuries ago.

• They would like to develop mechanical decorating methods.

• They can't forget that it takes 51 persons to make a cup—from mixing of the clay to final crating and shipping.

• **Labor Problem**—Pottery management men don't like to talk about union restrictions, but these are an admitted obstacle to increased mechanization. Some believe it will take the renewed competition of cheap foreign ware to overcome union resistance on this score. And this competition may come soon. Former dinnerware customers of the Japanese are making exploratory trips to Japan to survey import possibilities.

Policy of the pottery industry, as exemplified by statements of the U. S. Potter's Assn., favors protective tariffs. The association, representing 80% of the industry, sees prosperity only if its members' business is not "sacrificed on the altar of international trade."

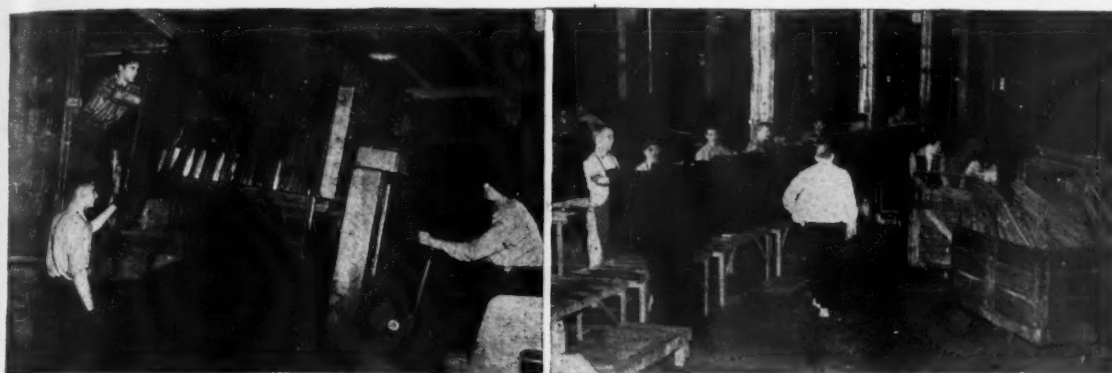
• **Good Size**—Be that as it may, the industry this year is turning out 500 million pieces; factory value of its production is \$85-million.



KNIGHT WORK

One Los Angeles' plant has gone back into production for war—but its output is several centuries out of date. Readymade "tin suits"—armor for a forthcoming Hollywood epic—are now coming off the assembly line (above) of the Arrowsmith Tool & Die Co. Pieces for the suits, of magnesium, are mass produced by die press, the segments going down the line for riveting, finishing, and an occasional test fitting (right). And because alterations to the suits are difficult, the movie knights will be chosen with physical uniformity in mind—6 ft. 1 in.





PARTS made at the old plant are hauled to the new one

OPERATORS on the new assembly line put them together

Plants on the Move Keep Right on Producing

Moving day means headaches—the bigger the move, the bigger the ache.

But American Stove Co., Cleveland, is demonstrating that you can move machinery, shop, tool room, and an assembly line geared to turn out 250 cooking ranges a day without losing a day of plant production. Destination—five miles across town—is the company's new \$1-million plant, recently purchased from War Assets Administration.

The exodus from the old plant

began during the July two-week vacation shutdown. Some of the returning vacationers reported immediately to the new plant, found trucked parts (above, left) waiting, began work assembling sections (above, right) produced at the old plant. As space is ready at the new site, machines from whole departments are trucked in and installed overnight. Operators follow in the morning, carry on while more parts are installed. The new assembly line, still "under construction," is turning

out 50 units a day. Other lines are still operating at the old site. Full operation of the new plant is scheduled for Nov. 1.

Package Machinery Co. of Springfield, Mass., this spring pulled off a similar operation. After months of planning, the shift to the company's new East Longmeadow site was made with the loss of only one day's total production. The move involved 6-million lb. of parts, 24-million lb. of machinery, 850 round trips totaling 14,450 miles.

FM Chain Sponsor

Stromberg-Carlson takes first commercial program on Continental. Station-to-station transmission still only partly-solved.

Frequency-modulation broadcasting took a step forward last week as the newly-formed Continental FM Network aired its first commercial program. The show was a half hour of music sponsored by Stromberg-Carlson Co., itself owner and operator of an FM outlet in Rochester, N. Y.

• **Triumph**—For the infant network, signing the show was something of a triumph. Heretofore all programs have been on a sustaining basis, and network operation has been largely experimental. Continental hoped that Stromberg-Carlson's move would encourage other advertisers to make use of the FM circuits.

Scarcity of sponsors has not been the network's only problem. The main trouble, still only partially solved, is station-to-station transmission. Since FM radio waves do not curve with the earth, the distance they travel is limited.

At present the 22 stations in the network are linked by two systems: direct radio pickup, and 8-kilocycle telephone cables. Where the stations are connected by direct radio pickup, the problems are mostly operational. But the telephone-line hookups present more serious difficulties.

• **Cable Trouble**—One of FM's advantages over present AM (amplitude-modulation) radio is the fact that it reproduces sounds as high as 15 kc.—a broad range of high and low tones. When programs are relayed over an 8-kc. cable, however, most of the tonal frequencies above 8 kc. are cut out. Quality of reproduction is still better than AM (which is usually relayed over a 5-kc. cable), say the frequency modulators, but it's not as good as it could be.

Stromberg-Carlson's show, therefore, will reach only Rochester—where the program originates—and Hornell, N. Y., with full 15-kc. spread; these cities are linked by radio pickup. The FM audience elsewhere will receive the program after it has been transmitted by cable to Binghamton, N. Y., and Alpine, N. J.

It is retransmitted from those cities by both cable and radio, and broadcast by individual stations. But no matter which system of transmission is used by Binghamton and Alpine, they will

be able to send out only the 8-kc. spread that they receive by cable.

• **Possible Remedies**—Continental hopes to remedy this difficulty soon. One network member stated that it is possible to get a 15-kc. transmitting line within a year from the date of order.

Another solution is being worked on. This plan would locate "mother stations" of extremely high power in large cities at widely spaced intervals. The mother station would feed nearby stations. But it would also transmit by radio relay over fairly long hops to the next mother station.

• **"Subsidy?"**—FM broadcasters see red at the mention of A. T. & T.'s coaxial cable between New York and Washington, D. C. now being used free of charge by television companies. FM considers itself a competitive service, complains that it cannot get the full-fidelity lines it wants, even though it pays for them. FM men say that the situation amounts to a virtual subsidy for television.

A. T. & T. replies that the coaxial cable for television is still experimental, whereas a satisfactory method for transmission of 15-kc. FM signals has already been developed. FM broadcasters can get this service if they will only order it, says A. T. & T.

Stock Split Helps Orphanage

Industrial school is big shareholder of Hershey Chocolate Corp. Firm's childless founder, Milton Hershey, made orphans his heirs, built school which now has \$70-million endowment.

A group of de luxe orphans will be the principal gainers from the proposed three-for-one split of Hershey Chocolate Corp. stock scheduled for a vote on Sept. 15. They are residents of the fabulous Hershey Industrial School. It was founded among the Pennsylvania cornfields by the late and childless Milton S. Hershey.

Vote of the stockholders is a dry formality. The industrial school is the dominant shareholder, owning 528,121 of the company's 685,749 common stock (and 21,110 of the 253,844 shares of preference stock). Trustees (Hershey Trust Co.) control the corporation and operate the school.

• **Paternalism**—Gentle, sincere Milton Hershey ran his business on a strictly paternal basis. Beside his plant he built an idyllic town for his workers, presiding over the tribal domain like some amiable patriarch. Together he and his workers developed the business until it accounted for nearly 30% of the nation's chocolate volume.

But Hershey lost interest in money-making as a way of life after he had acquired his first million. His 5¢ and 10¢ chocolate bar, once well started, multiplied his profits just as his friend Henry Ford's innovation swept through the transportation field. Paternalism dictated the disposal of Hershey's fortune when he made "the orphan boys of the United States my heirs."

• **Tragedy**—A tragedy in Hershey's last years was that his industrial school was

criticized. Admitting the purity of the founder's intentions and the excellence of the management, social workers declared that the trend was against institutions for orphans. They say that such boys ought to be kept with relatives or boarded in sympathetic families.

Moreover, the millions that the school drained off was an argument used by union men when they moved to organize Hershey workers and demand better wages. Most of the chocolate company's 3,150 employees renounced total dependence on paternalism when they joined the A.F.L.'s Confectionery Workers International Union and signed a contract with the company.

• **\$70-Million Endowment**—Since Hershey's death two years ago, his company executives have carried forward the chocolate business with their accustomed fervor. And the trustees have done the best they could to keep up with the money pouring into the coffers of the industrial school. The original Hershey gift to the school was \$60-million. Value of the endowment has since passed \$70-million—more than the investments of all but a few of the great universities.

The orphans' annual income from Hershey Chocolate stock alone is \$1,668,000. But 1946 marked another rich haul. In March of that year, the school's trustees sold out its immense Cuban empire for an estimated \$14.5-million in cash and stock. Buyer was the Cuban Atlantic Sugar Co. which

acquired such items as Hershey's land cane mills, the biggest refinery in Cuba, peanut oil plants, a henequen (sisal) enterprise, a complete town, public utilities, a 250-mile electric railroad, docks, and small vessels.

• **Hard Battle**—Milton Hershey had started the Cuban venture to short-circuit sugar interests which were exploiting his need for sweetening. He is supposed to have invested \$30-million in the project. It was a hard battle, and the losses at first were staggering, but the Cuban companies belonged to the industrial school and their deficits did not affect the glowing totals of chocolate profits.

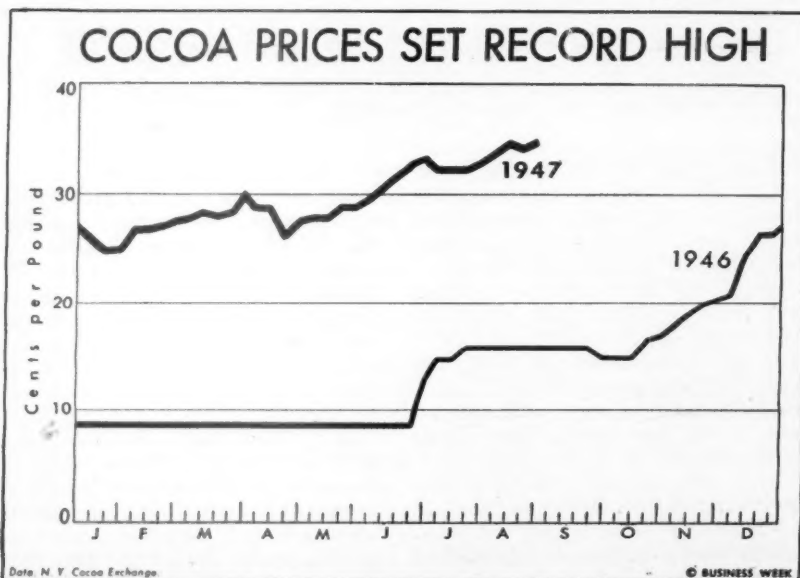
The Cuban project's master strategist was P. A. Staples. The high command decided to cash in the Cuban project while the world still was short of sugar. Staples had made such a brilliant record that he was elected president and chairman of the Hershey Chocolate Corp. last March.

Executives who work with Staples are mostly veterans who were advanced by Milton Hershey and are considered as shrewd as any in the business. They continued to pile up profits not only during the war shortage of cocoa but in the peacetime aftermath when released controls allowed cocoa prices to hit record peaks (chart, below).

• **Squeeze**—Hershey officials remain discreetly silent while some elements of the trade denounce "the squeeze of American consumers engineered by British and Brazilian producers." One authority is trying to promote a boycott, suggesting that American grinders allow their stocks of the precious bean to fade off to a 60-day supply. The orphan boys at Hershey can rest assured that company officials are on their toes. They have accumulated at least a five-month supply of cocoa beans, which is the average of the industry.

Trustees of the school are under a constant strain to direct intelligently the torrent of income that flows from the parent company. Net income of the corporation rose from \$5,908,000 in 1940 to \$8,495,000 in 1946, was \$3,530,000 for the first quarter of this year. In the same interval, earnings per share of preferred increased from \$23.77 to \$33.47. Common stock earnings jumped from \$6.76 to \$10.54. And total current assets have risen to \$33,196,000, including \$14,117,000 cash.

• **Unique Accomplishment**—The sales accomplishments of the Hershey Chocolate Corp. are most unusual: It is one concern in the consumer field which reached preeminence without benefit of advertising. Rival marketers explain this by noting that Hershey products are packaged in standardized brown-and-silver habiliments, that they profit from their popularity with doughboys in World War I. Actually Hershey





***This SMART-LOOKING SWITCH* was designed
to satisfy the 1947 National Electric Code Ruling
for Motors of One Horsepower or Less**

The Allen-Bradley Line
includes manual and automatic starters for motors up to several hundred horsepower; push buttons, limit switches, pressure and temperature switches; relays, contactors, solenoids, and drum controllers; rheostats, solid molded resistors, and potentiometers.

The 1947 Code says: "Any motor of one horsepower or less—AUTOMATICALLY STARTED—shall be protected against overcurrent." (See article 4322-C.)

Meet this new stringent code requirement with the Allen-Bradley Bulletin 600 Switch. A thermal device trips the switch when the motor is carrying a sustained overload; it is impossible under this condition to hold the switch closed. Easily reset after overload is cleared.

The standard Bulletin 600 Size B switch has a gray plastic cover and a silver-plated, punched metal base with knockouts in top, bottom, and rear. The switch unit, without enclosure, will fit into any standard outlet box. Can be flush mounted in walls with standard switch plate.

Allen-Bradley Co., 1332 S. Second St., Milwaukee 4, Wis.



ALLEN-BRADLEY

QUALITY SOLENOID MOTOR CONTROL



Is the water you use — **“OUT-OF-DATE?”**

It may well be! Machines, materials and methods have changed through the years . . . have been modernized! But has your process water kept pace with these improvements? Today's rapid technological changes require modern “up-to-date” process water . . . water that keeps operating costs down, maintains quality and speeds production!

For nearly 35 years Permutit has brought “up-to-date” the process water in every industry — meeting and mastering each plant requirement. Permutit's experience is at your service. Permutit, without obligation, will gladly analyze your problems with you and your consultants. Write to the Permutit Company, Dept. BW-9, 330 West 42nd St., New York 18, N. Y., or to the Permutit Company of Canada, Ltd., Montreal.

FOR 34 YEARS
Permutit

WATER CONDITIONING HEADQUARTERS

does some advertising, such as car cards. But its yearly expenditures for advertising are estimated at under \$100,000.

Basically, sales rest on acceptance of a brand. In the forefront for Hershey are the chocolate bars (with or without almonds). Packaged items are 70% of total sales. Hershey's chocolate syrup for household use, is a leader in the field. Also important are other home items, but syrup is sold to soda fountains and candy makers.

• **Retirement at 43**—Creator of the company and its unique orphan age was Pennsylvania born. He sold out a candy business in Lancaster for a round \$1-million in 1901 when he was 43 and retired. Because it seemed the thing to do, he and Mrs. Hershey started on a trip around the world. They got as far as Mexico when Mrs. Hershey said, “Let's go home.” Hershey, delighted, returned to Pennsylvania, broke ground for his new business 13 miles from Harrisburg.

Hershey lived in the utmost simplicity, but he planned with regal magnificence. He built a private and perfect village for his employees and gave it his name. Its \$3-million community house boasted the finest swimming pool in the state. There was a 1,000-acre park, a luxurious women's club, and a zoo.

• **Lavish Resort**—To supply the town's need for a hotel, Hershey built a lavish resort flanked by golf courses. Visitors never forget where all this luxury comes from, since on certain days the air is filled with the overly-sweet smell of cooking chocolate.

Hershey crowned all his benefactions in 1909 by adding the industrial school. Here 739 orphans from 12 to 18 years old live and study. Smaller boys are placed in dormitories supervised by kindly housemothers. Larger boys live in small groups with married couples at dispersed farmhouses.

BUMPER FLAXSEED—BUT

Midwestern farmers are gambling on continued high prices for their expected bumper flaxseed crop.

Last year, many farmers were chagrined when they sold their crop early at \$3.50 a bu., later saw the market skyrocket to \$8.50 a bu. This year they are out to recoup. They are holding back their crop, are hoping for even more than the current \$6.50 a bu.

The net result has been a famine in the midst of plenty. Linseed oil plants are operating at only 50% of capacity. The price of the important byproduct linseed meal for animal feed, has soared. Farmers this year planted 4,312,000 acres in flax compared to 2,708,000 in 1946. Total crop yield for 1947 is expected to be around 39,480,000 bu. against 22,962,000 for 1946.

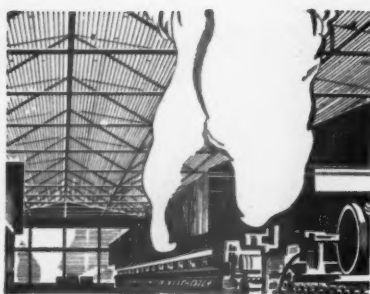
Send Shipments Via **NORFOLK and WESTERN** to the **NATIONS** of the **WORLD...**

... and take the load off your mind! The Norfolk and Western puts your foreign freight direct at shipside ... assumes full, last-minute responsibility for all movement and handling from the time it leaves your rail loading point until it is placed alongside ship at seaboard. When your freight is marked "Via N&W through the Port of Norfolk," you're buying Precision Transportation that takes the load off your mind as well as off your hands!

For information on rates, routes and fast schedules communicate with: W. C. Sawyer, General Foreign Freight Agent, 233 Broadway, New York 7, N. Y.; or other N. & W. freight representatives located in principal cities throughout the country.



Norfolk and Western Railway
PRECISION TRANSPORTATION



This Wood Changed Buying Habits of an Industry

PULP AND PAPER MILLS have a hard time finding construction materials that can withstand their high temperatures and humidities. For example, before the lasting ability of Wolmanized Lumber* was so generally known, they were continually having to replace ordinary wood that had decayed within three or four years.

THEN THEY STARTED to use Wolmanized Lumber for roof planks and timbers, window frames and sash, and elsewhere in the mills. Because this wood is highly resistant to decay and termite attack, the need for replacements in mills using it practically disappeared.

LOWER MAINTENANCE costs result when Wolmanized Lumber is used; service records covering millions of feet, some in use over twenty years, are evidence of this fact. In addition, all of the advantages of wood construction are retained: ease and speed of erection, light weight, resilience, strength, high insulating value, and low first cost.

WOLMANIZED LUMBER is ordinary wood, made long-lived by vacuum-pressure impregnation with Wolman Salts* preservative. It is clean, odorless, and paintable. May we send you more information? Write American Lumber & Treating Company, 1656 McCormick Bldg., Chicago, Ill.

*Registered Trade Marks

Wolmanized

LUMBER



BARGAINS AT \$750, Navy craft go at a tenth of cost as WAA whips up sales

Surplus Job Nears End

WAA hopes to be able to close up by next summer. Many war plants, training camps, airports are unsalable; these will be held by the government as "permanent assets."

A closeout of war surplus stocks by midsummer 1948 is one achievement the Democratic leadership intends to hang up in its November election exhibit.

• **Real Estate**—Two-thirds of the War Assets Administration's remaining inventory is real property—plants, training camps, airports—most of which it cannot sell, lease, or give away. These white elephants will be "disposed of" to an extended WAA or some other agency as more or less permanent "assets" of the government.

At the moment, WAA has about \$3.6-billion of real estate, with more to come. It is stuck with most of it. Airports are hard to move because the services expanded them so much that local governments can't afford maintenance costs. With few exceptions (page 67), nobody wants training camps. Most remaining plants are either special-purpose, too big, too remote, or in lines where additional capacity is not needed or not wanted—aluminum, steel, chemicals, rubber.

A few plants are still being disposed of, of course. Last week, for instance, Hotpoint, Inc., announced that it had bought a big Milwaukee plant that had been operated during the war by Allis-Chalmers. The acquisition is part of Hotpoint's \$20-million expansion program (BW—Aug. 27, p. 72).

• **Deadline**—As for movable goods, WAA expects to clean the shelves, ex-


cept for an excusable residue, probably by next June 30.

This is how: As new and desirable stocks thin down, fixed-price selling will give way to competitive bid sales. There will come auctions, to clean up after the bidders. There will be plenty of negotiated deals too—scrupulously handled, to forestall future criticism. Meanwhile the present recovery rate of about 15% on original cost will slide toward zero.

• **New Surplus?**—WAA had been worried about further declarations of surplus. It was recently estimated that these might come to as much as \$7-billion—mainly from Army and Navy. But the picture has changed.

Gen. Lucius D. Clay in Europe and Gen. Douglas MacArthur in the Orient may be allowed large quantities of surplus, declared or not. The armed forces are concerned about war tension, hoping for universal military training next year, and scrimping under trimmed appropriations for new stuff. So they are tightening down on declarations, withdrawing some—even buying back a few odd surplus items in the market, at a big loss. So additional transfers to WAA may scale down to \$3-billion, or even \$1-billion, instead of \$7-billion.

In the corridors of WAA's Washington headquarters, you hear that military withdrawals of already-declared surplus are a pain in the neck. The law says that Army and Navy can withdraw



ELEVATOR CARRYING CAPACITY INCREASED
UP TO 30% WITH . . . WESTINGHOUSE

Selectomatic

**The only supervisory system that matches
elevator service with demand . . . automatically!**

Eliminate complaints about excessive waits for service! Assure faster service to *lower* floors and uniform service to *every* floor!

Westinghouse Selectomatic gives you *all* these advantages. This radically new development is the only supervisory control system that coordinates elevator service to widely fluctuating demands all through the day . . . instantly and *automatically*!

Selectomatic—*another* original Westinghouse development—is designed for office buildings, stores, hotels and hospitals. It requires only the push of a button to establish fully automatic patterns of operation that solve the three major types of elevator demand—up peak, down peak, and two-way traffic. Each elevator car is given the “intelligence” to recognize the demand for service and answer it promptly.

Ask to see the new 16 mm. sound motion picture “Speeding Vertical Transportation with Selectomatic” . . . 17-minute story of Selectomatic in action.



Westinghouse

ELEVATOR  DIVISION

Write to Westinghouse for your copy of “Selectomatic Makes Elevators Work As A Team.” Address the Westinghouse Electric Corp., Elevator Division, 150 Pacific Avenue, Jersey City 4, N. J., on your letterhead please.

J-98508

**\$3300. SYSTEM
Saves
\$1300. A MONTH!**

LAMSON DISPATCH TUBES

Enable prominent screw manufacturer to ship orders the day received from an inventory of 30,000 items!

● An inventory of 30,000 manufactured items required so much written records and paper work that orders in this plant fell weeks behind the movement of the finished work.

Lamson Solved the Problem

● Lamson Engineers designed a system of Pneumatic Tubes which now speeds orders, inventory forms, reports and stock transfer slips so rapidly that orders are now being filled on the day of receipt.

Lamson Saves \$1300 a Month

● The installation cost of the Lamson System was only \$3300 yet it saves the plant \$1300 a month. It will continue to pay for itself every 3 months through the many long years of its life.



Free Book Shows You How You Can Save

● The book, "Wings of Business," illustrates and describes Lamson Tubes at work in dozens of types of business. Free for the asking.

Lamson Corporation
105 Lamson St., Syracuse 1, N. Y.
Send me a FREE copy of your Tube Booklet, "Wings of Business."

Name.....
Position.....
Address.....
State.....



COUNTER MEASURE FOR WASTE SPACE

Pan American World Airways has turned up a novel idea for converting one of the airlines' chief headaches—unsold passenger space—into profitable payload space. In 20 minutes ground crews can slap up light stanchions and netting around the forward four seats, adding 4,000 lb. of cargo capacity. Pan American is currently installing cargo racks on 32 DC-4's at a cost of \$2,200 each. This gives its Latin American fleet an added cargo potential of some 125,000 lb.

anything, any time. They are said to have promised not to crowd the privilege—but circumstances are forcing them. And every time they withdraw stuff that has been inventoried and advertised by WAA, they chip a piece out of WAA's skimpy budget (which is down from \$500-million in fiscal 1947 to \$257-million this year). At the same time, they discourage prospective buyers.

● **A Year's Job—Ex-Gen.** Robert M. Littlejohn is proud of what he has accomplished as head of WAA. He reports that the job was only 15% done when he took over in July, 1946, and now it's over half way to the finish; that the \$13.6-billion disposal during his year in office is three times disposition in any of the three previous years; that his year's recovery rate of 29% is still 22% after operating costs.

The hard-boiled general just as willingly tells how he did it:

● Consolidated all disposal agencies under WAA.

● Centralized policy in Washington and placed all selling authority in the field.

● Expanded his staff from 36,500 to 59,000 workers.

● Established six zone offices to absorb 33 regional offices.

● **The Other Achievements—**Littlejohn points to these other achievements: Inventories were tabulated in two hard drives so that, for the first time, the government knew what it had in stock. About 4,500,000 veterans were certified and served with \$1-billion of goods during the year. One hundred national

sales programs were developed, involving \$1-billion of goods. With extreme difficulty, a machine-tool inventory was taken, and catalogs are now being distributed. Customer service centers were established to display and sell all kinds of personal property—even a balloon, which got away, and 300,000 quarts of whisky, which sold at 120% of cost.

A quick look at Littlejohn's book (all figures are original cost, expressed in millions of dollars—000,000 omitted):

Acquisitions, entire program, to Aug. 1.....	\$27,336
Disposals, entire program, to Aug. 1.....	19,426
Inventory, on Aug. 1.....	7,910

Some Current Inventory Estimates

Real property.....	\$3,600
Consumer and capital goods.....	2,300
Aircraft, parts, components.....	1,300
Machine tools.....	\$457.6
Electronics.....	407.0
Electrical equipment.....	122.7
Clothing.....	84.4
Internal-combustion engines.....	79.7
Iron and steel.....	72.7
Steam equipment.....	70.6
General hardware.....	63.3
Textile products.....	57.4
Materials-handling equipment.....	53.2
Recreational equipment.....	46.8
Trucks.....	45.1
Metals-processing equipment.....	42.6
Chemicals.....	41.9
Cutting tools.....	40.7
Metal forging and cutting equipment.....	38.2
Safety equipment.....	35.8
Metal heat-treating furnaces.....	35.2
Nonferrous metals.....	33.1
Valves and fittings.....	33.1



RESCUER: Western Air Lines' Terrell Drinkwater clipped his company's wings to keep it in its own backyard.

Down to Earth

T. C. Drinkwater pulls his Western Air Lines out of red by discarding over-expansion plans. He sells routes, cuts expenses.

Early next week Terrell C. Drinkwater, president of Western Air Lines, will begin a mile-by-mile station-wagon tour of Western's air route zones. He and the executives who will accompany him have forsaken the airplane on this trip for good reason. They will be in no hurry.

They want to range far from the airports, to the cities and towns off the main line. They want to shake hands with westerners, talk to them and get to know them. More directly, they want to find out what W.A.L. can do to serve them.

• **Abandoned Dream**—Such a move is typical of Western's vigorous, 39-year-old president. It reflects a determination to carry out the down-to-earth decision he made when he took over the job on Jan. 1, 1947: to abandon the wartime dream of national expansion; to make W.A.L. a purely regional airline.

It will also show that his first W.A.L. project is finished. That project was to keep the 21-year-old airline from foundering, as it almost did in the first quarter of 1947. He can now afford to be away from his hot seat in Los Angeles.

• **Out of the Red**—Like many another airline (BW—Jan. 11'47, p64), Western Air Lines lost heavily in 1946—about \$1-million. In the first quarter of 1947 it lost \$680,000. But W.A.L. is now in the black and is being run so tightly that

it almost can't help but remain there. Here's how Drinkwater did it:

• **Step No. 1**—He sold Western's Los Angeles-Denver run to United Air Lines for \$3,750,000 (BW—Mar. 15'47, p28). The sale produced an immediate and much-needed \$1-million in cash for W.A.L. And it gave United the foundation of a better transcontinental route and better competitive position for Los Angeles traffic (previously United's Los Angeles passengers cleared through San Francisco). The sale was approved by the CAB in August, and United begins operations on the new route Sept. 16.

W.A.L.'s pressing need for cash was shown up in an incident in February. Drinkwater was able to meet the company's weekly payroll only by a lucky—and timely—tax refund of \$65,000.

• **Step No. 2**—He tightened up W.A.L.'s internal operation. As quickly and smoothly as efficient operation would permit, Drinkwater trimmed personnel. A total of 28% were dropped in the first eight months of the year. The sales, accounting, personnel, and ticket departments were cut down. Secretaries were doubled up. The advertising and publicity departments were consolidated, 16 jobs eliminated.

Stanley R. Shatto was brought in as vice-president in charge of maintenance and engineering. Shatto put on the heat in his new domain and operating efficiency climbed from 75% to 99%.

• **Plus Consolidation**—Western's offices, which spread all over Los Angeles County, were consolidated under one roof at the Los Angeles Municipal Airport. Result: Money was saved, efficiency increased.

Deals were made with other airlines for joint use of facilities—with Northwest in Seattle and Portland, with American in San Francisco (and soon in Los Angeles), with Mid-Continent in Minneapolis.

By the end of August, the general belt-tightening had cut \$150,000 monthly off W.A.L.'s operating budget.

• **Step No. 3**—Drinkwater promoted a \$4½-million loan from the Reconstruction Finance Corp. Contingent on CAB approval of the Denver-leg sale to United, the loan went through in August. With these funds and the balance of \$2½-million due from United, W.A.L. has cash enough to consolidate its debts which include \$1.8-million to the Chase National Bank, about \$1-million to Standard Oil Co. of California and Pacific Airmotive Corp., and \$2½-million to Austin Co. (contractors).

There will be plenty of cash left over to pay for the five new Convair-Liners W.A.L. expects to receive from Consolidated early in 1948.

But the RFC loan is a short term deal. Drinkwater expects to refinance it with a western bank. From now on he



CHAIN
for every need

• INDUSTRIAL • MARINE

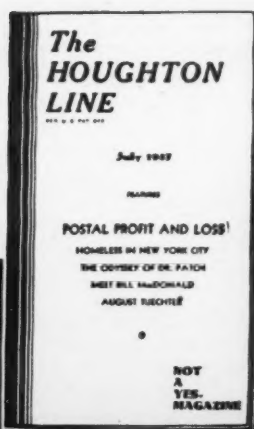
• FARM • AUTOMOTIVE

**INTERNATIONAL
CHAIN & MFG. CO.**

YORK, PENNA.

The "near-editor"
discusses:

OILS, LIKE MACHINES, BECOME OBSOLETE—



More than half a million square feet in the former Chicago Dodge plant are now covered with evidence that machine tools built before the war are out of date. The Machine Tool Show's main objective is to point out that metals can be worked faster and cheaper with modern machines.

By the same token, the pre-war lubricants—good in their day—are also obsolete. Machine speeds and loads have been greatly increased in the past decade, to the point where nature's best petroleum stocks must be fortified by chemical means in order to lubricate those new machines effectively.

So a variety of chemical treatments has been devised to make good oils better . . .

To increase their film strength . . .

To make them resistant to oxidation . . .

To provide anti-welding properties for cutting fluids . . .

To strengthen the molecular cohesion of lubricants so they resist leakage—and "stay put" . . .

To increase their ability to keep any gums or sludges in solution, rather than deposit them on working surfaces . . .

To improve viscosity index so that oils do not thin out too much under heat or thicken unduly when cold . . .

To prevent corrosion of bearings.

Modern machine tools depend on such modern oils, fortified by scientific treatment for better lubrication, for cooler cutting, for trouble-free hydraulic media.

And in this development of better oils Houghton has played an important role. It's an interesting story, the Houghton Man would like to tell it to you, to help you end oil obsolescence.

Aaron Carpenter

PRESIDENT

E. F. HOUGHTON & CO.

303 W. Lehigh Ave., Philadelphia 33, Pa.

Manufacturers of
LUBRICANTS

METAL WORKING PRODUCTS
TEXTILE OILS & CHEMICALS
LEATHER BELTING & PACKINGS

intends to deal with western concerns exclusively.

Still further funds will be raised by a stock issue, Drinkwater says.

• **Step No. 4**—On Aug. 1, W.A.L. began a new leg on its key run from San Diego to San Francisco. It now extends through Portland to Seattle and Tacoma.

By this time Western's operation was so tight that the new leg started making money right away. It achieved a phenomenal 63% load factor in its first weeks. W.A.L.'s system-wide load factor is now a neat 60%.

Drinkwater's success will be told even more clearly when W.A.L.'s operating figures for the first six months of the year are released. Second quarter profit should total over \$300,000. Drinkwater is confident the entire first quarter loss can be made up. He even expects a small profit shown for the year as a whole.

• **What Next?**—For the future, observers look for Drinkwater to make two important moves:

• **Connect the two main legs in the W.A.L. system.** The new leg would run from Seattle to Cutbank on the Canadian border. Cutbank is the end of W.A.L.'s route which runs north from Los Angeles through Denver and Montana, connecting with Trans-Canada at Leftbridge. This would enable W.A.L. to route its planes in a circle, with an increase in operating efficiency.

• **Sell W.A.L.'s Inland Division,** which runs from Denver to Minneapolis. Though a profitable operation since W.A.L. bought Inland in 1940, the route is outside Drinkwater's chosen operating sphere. Since the Denver-leg sale, it doesn't even connect with the rest of W.A.L.

• **The Record**—In March, Drinkwater, in discussing the proposed sale of the Denver leg, said: "We fully expect that the process of pruning our route structure down to that of a regional carrier in possession of a definite service pattern will place our company on a sound financial basis."

"The same could probably be said of other members of the air transport industry."

In nine months he had proven his first statement. The industry could examine his record and wonder if his second statement were equally true.

DEARBORN EXPANDS

Dearborn Motors Corp., until now a sales company, is becoming a manufacturer as well. It has purchased Wood Bros., Inc., 60-year-old implement maker of Des Moines. Corn pickers made in the plant will go with the new Ford tractor (BW—Jul.12'47,p28) and the line of 35 implements that Dearborn distributes.

FOR FLEET OR INDIVIDUAL USE

There's a CHEVROLET Stylemaster right to your liking



THE STYLEMASTER BUSINESS COUPE

In outward appearance, the Business Coupe is indistinguishable from a stylish passenger car. But inside, back of the three-passenger seat, a level luggage deck covers the entire floor area, providing commodious and accessible load space — suitable for carrying sample cases, display material, appliances and a wide variety of merchandise. The regular luggage compartment under the rear deck provides additional space.

THE STYLEMASTER TOWN SEDAN

This popular two-door passenger car is equally advantageous for professional, business or personal use. Wide doors, and the divided back of the three-passenger front seat, make the rear passenger compartment easily accessible. Either door may be unlocked from the outside. A large quantity of bulky luggage can be carried in the trunk compartment under the rear deck.



The Chevrolet Stylemasters, lowest-priced models of the Chevrolet line, are identical with the highest-priced Fleetline models in engine, chassis and body construction. Thus, both the fleet user and the individual are assured of the economy of operation of Chevrolet's famous valve-in-head engine, the low-cost maintenance of Chevrolet's time-proved chassis, and the recognized superiority of "Body by Fisher." In short, in these Stylemaster models you get Chevrolet's Big-Car comfort, Big-Car performance, Big-Car reliability.

CHEVROLET MOTOR DIVISION, GENERAL MOTORS CORPORATION, DETROIT 2, MICHIGAN

CHEVROLET—BIG-CAR QUALITY AT LOWEST COST



**inventory
overweight?**



**cash
underweight?**

When this situation occurs, it's time for an inventory loan from your bank or other lending agency.

Write today for the Douglas-Guardian booklet explaining how to borrow \$10,000 or more on merchandise *right where it stands*. We don't make the loans ourselves. We issue warehouse receipts on your inventory so that it becomes sound collateral for a bank loan.

DOUGLAS-GUARDIAN WAREHOUSE CORPORATION

50 Broad Street
New York 4, N.Y.

I'm interested in a bank loan on inventory. Please send me a copy of PROFITS ON YOUR PREMISES.

Name _____

Address _____

BW-9-13-47

Clothes by Mail

Textile mill man gets rid of distress merchandise at profit, selling big quantities at low prices by mail order.

On Manhattan's Crosby St., a gritty back alley that most New Yorkers never heard of, stands the unique mail-order store of McMahon & Cremins. Its business is booming primarily because it has capitalized on inflation by selling its selected lines of clothing items at low prices.

• **One or a Dozen?**—The store gets its prices down partly because it sells by mail order. But McMahon & Cremins has made an important extension of that idea: It is pushing in ads the old principle that selling one item costs as much as selling a dozen. Therefore it reduces prices to the customers who buy in quantity. This idea has proved highly popular with many buyers—and profitable for the store.

Copyrighted name for the plan is "Multiple Unit" service. It was put into practice by Lester Martin, who handles the sales of well-known textile mills and also owns some. He has his own firm in New York, is head of McMahon & Cremins. He first made his bid for public favor in a mammoth advertising campaign this summer.

• **Bargains and Fan Mail**—Following successful preliminary ads, New Yorkers were loudly notified of Martin's crusade on Sunday, July 20. On that day Martin took four full pages and six columns in the Herald Tribune. In addition to two pages of bargains, he devoted two pages to fan letters, and three-fourths of a page to explaining his theory. The ads had a corner coupon for mail orders as well as the store's phone number. "Free parcel post everywhere" was promised. Though the ads were local, more than half the replies (as in subsequent promotions) were from out of town.

Last week he took two pages in the Herald Tribune's Paris edition. His message: Write to your friends in America to send you needed products.

• **Offerings**—Advertised brands were limited to those for which Martin is sales representative—Chalmers, Loom-Tex, Windsor, Fruit of the Loom, Whittendon, among others. Items offered included men's and women's underwear, nightwear, handkerchiefs, housedresses, shirts, cotton piece goods.

Brief rayon panties quoted at 79¢ each, were 65¢ if ordered by the dozen; \$1.59 bloomers were \$1.29 in dozen lots. A surprising demand developed in period underclothes including bloomers, long obsolete with the night club

set. Neither the knit union suit nor the balbriggan is yet extinct.

• **Pay as You Go**—Martin finances his mail-order house in a simple way far more easily than it might seem. Basis of it is the fact that he has close tie-ins with a number of textile mills. During the textile slump this spring, he took the material left from canceled retail orders, made a profit selling by mail order in bulk. Since most consumers prepay for their purchases, Martin thus gets his working capital, in effect, as he goes along.

One big help is that his overhead is low. The McMahon & Cremins store is in the wholesale district, far from the high-rent district where shoppers swarm. Sidewalks are almost deserted except for backed-up trucks. One salesgirl tends the small retail room. Behind it are the stock shelves and packing department where orders are filled.

Martin claims over 80,000 customers. Families and groups of friends band together to make the most of quantity discounts. Some who received wrong sizes have passed them on and reordered for themselves. Martin reports that returns are only seven-tenths of 1%.

• **Shock Absorber**—The office of Martin, the mill representative, is much fancier than the adjoining premises of Martin, the retailer; it has its own art gallery. Martin classifies his store as an experi-

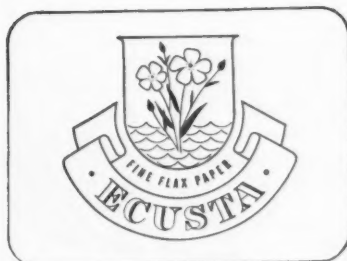


JOINS ATOM GROUP

Dr. Bruce S. Old, widely known metallurgist, has been appointed consultant to the research division of the Atomic Energy Commission. He'll serve as chief metallurgist on a part-time basis, which will enable him to continue his work with Arthur D. Little Co., industrial engineers, Cambridge, Mass.

Dr. Old is known for his research on the development of techniques for operating blast furnaces under pressure to increase pig iron output.

Ecusta Papers
Make Messages Look
IMPORTANT



FINE FLAX WRITING

LINEN FLAX WRITING

FINE FLAX AIR MAIL

FLAX-OPAQUE BIBLE AND PRINTING PAPERS

BOXED TYPEWRITER PAPERS

Ecusta Paper Corporation
PISGAH FOREST, NORTH CAROLINA



There's food for thought

IN THIS BOOKLET

It tells how hundreds of businesses . . . large and small . . . have discovered the high cost of doing office folding jobs by hand . . . and how machine folding has solved the problem. It shows how one girl, with a Davidson Folding Machine, can, in a few hours, do the work of 10 to 20 girls working overtime.

Perhaps you haven't considered this expense . . . but it's there every time you take a group of employees from their regular duties to fold monthly statements, bulletins, advertising literature, etc. Perhaps the importance of prompt mailing hasn't occurred to you . . . but it is often most important . . . and it can be done . . . easily and economically.

Better get a copy of this booklet. We'll gladly send it . . . without obligation.



Send for it today

DAVIDSON MANUFACTURING CORP.
1034-60 W. Adams St., Chicago 7, Ill.



Davidson Sales and Service Agencies are located in principal cities of U. S., Canada, Mexico, and foreign countries.

Davidson

FOLDING MACHINES

A GENERATION OF EXPERIENCE IN THE MANUFACTURE OF OFFICE EQUIPMENT

ment. He says he is a sort of absorber between the mills and retailers.

"That buyers strike you heard about," he says, "wasn't a strike of consumers. It was a strike of buyers for stores who wanted to work off the junk they had in stock before ordering better merchandise from the mills."

• **25% Markups**—Martin claims to have proved that consumers will buy accepted brands if prices are right. He figures that volume protects the retailers' profit position when the traditional 40% markup is reduced. Martin thinks about 25% would be more like it.

He admits that retailers and mail order houses often cut unit prices on quantity sales but says that their reductions are too slight to be important. October he will run an ad in *College* magazine to test the national acceptance of multiple-unit pricing on the brand Martin represents.

In a recent underwear ad, Martin lists the following stores as adopting the "Multiple Unit" idea: Abraham Straus, Brooklyn; Gimbels, New York; Davega stores, New York; Kresge, Newark, N. J.; Gertz, Jamaica, L. I. Martin considers himself a missionary with a message to retailers, says his only gain through increased sales of the brands which he handles.

ELECTRIC POWER EXCHANGE

Pacific Northwest states and British Columbia can now exchange electric power. The exchange is the result of an agreement approved by the U. S. and Canadian governments. A high voltage connection between lines of the Bonneville Power Administration and the British Columbia Electric Ry. Co. has been made at Blaine, Wash., on the U. S.-Canadian border. The connection is expected to have immediate value to the United States. It will permit movement of unusual off-peak surpluses from Columbia River power plants. Further advantage to the Pacific Northwest is expected when the 500,000-kw. Bridge River plant, the Canadian company is ready to deliver power. The plant is now absorbing surplus power from this plant then will be available to Northwest utilities at a time when serious power shortage in Oregon and Washington is forecast.

Power generated at Grand Coulee and Bonneville dams during night hours and week ends in the past has been unused. Now it will be transmitted over a 230,000-volt line into the Canadian company's system.

Only excess energy beyond amount necessary to supply all requests from Bonneville's U. S. customers may be made available for transmission into Canada.

Yoloy passes the Acid Test...



High-tensile truck
bodies prove they
can "take it"

AFTER nine years of the hardest kind of service, here is a garbage truck still in excellent condition. Its body is high-tensile steel.

Previously, New York City's garbage trucks were built with carbon steel bodies. Usually they had to be repaired every 6 to 12 months. To eliminate this condition high-tensile corrosion resisting steel was specified. These ran for years without repairs, and since then repairs have been minor--confined to replacement of bottom parts worn out by abrasion. There have been no failures due to corrosion.

Yoloy is Youngstown's nickel-copper low-alloy steel. Its corrosion-resistant characteristics are outstanding. It is also unusually tough and strong, with excellent welding properties. This makes Yoloy ideal for construction where it is important to reduce dead weight, and where long, trouble-free service, even under adverse conditions, is important.

Yoloy, Youngstown's high-tensile steel, is produced in plates, sheets, strip, bars, shapes, seamless and electric weld pipe.

Acids, moisture and other corrosive matter have not seriously affected the high-tensile steel garbage truck body shown above.



YOUNGSTOWN

THE YOUNGSTOWN SHEET AND TUBE COMPANY

GENERAL OFFICES - YOUNGSTOWN, OHIO

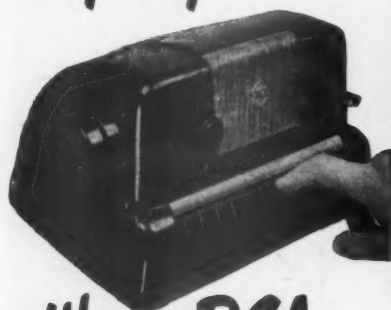
Export Offices - 500 Fifth Avenue, New York City

Manufacturers of

CARBON - ALLOY AND YOLOY STEELS

Sheets - Plates - Pipe and Tubular Products - Bars - Rods -
Wire - Cold Drawn Carbon Steel Rounds - Tie Plates and
Spikes - Conduit - Electrolytic Tin Plate - Coke Tin Plate

You get
the most
out of a
busy day



with an RCA
Intercom System

YOU SAVE AS MUCH as a half hour or more of your working time... when an RCA Intercom System is installed in your office, factory, or retail store.

The RCA Intercom System is direct, instantaneous and automatic. No need to wait for messengers, write memos, dial a telephone when you want immediate action. Just press a key—and talk! You can have privacy of conversation between stations and in your office by means of an earphone.

Without leaving your desk you can have voice-to-voice contact with key individuals in your organization... talk directly to one or several at the same time. In a twelve-master-station system as many as six separate conversations can be carried on simultaneously.

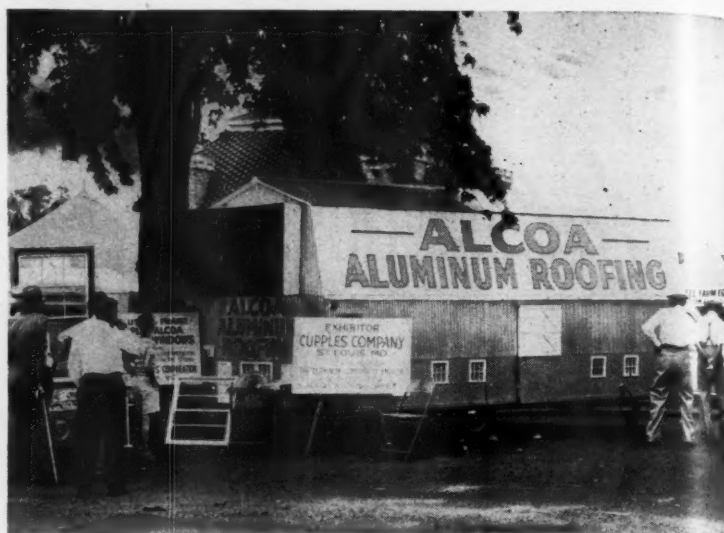
Five different and smartly styled, compact models permit a choice of intercom system layouts for your present and future needs. RCA Intercom dealers make simple and low-cost installations for businesses large or small. For complete information, write to Dept. 21-i.

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**SOUND EQUIPMENT
RADIO CORPORATION
OF AMERICA**
CAMDEN, N.J.

In Canada: RCA VICTOR Company, Limited, Montreal



BARNs ON THE MOVE TO BOOST ALUMINUM

On the fairgrounds at Columbus, Ohio, a miniature aluminum barn—on wheels—proves attractive bait to fairgoers. It is one of four trailer-displays that are touring the highways and country fairs. Cupples Co., St. Louis, sales agent for Aluminum Co. of America's corrugated roofing and siding, is out to sell more farmers on the idea of aluminum buildings. Some 5-million people will see the barns, watch the movie shown inside. Alcoa and Cupples believe they have a sure-fire argument for aluminum: It's one material that hasn't gone up in price since the war.

Independents Up

Registration figures show the Big Three auto makers got a smaller share of total sales in the first half of 1947 than prewar.

There has been a widespread belief lately that the big automobile companies have been grabbing more than their normal share of hard-to-get steel from smaller car makers. But a study of Polk car registration figures shows just the reverse to be true. The Big Three—General Motors, Chrysler, Ford—together are sopping up a noticeably smaller proportion of steel than they did prewar. Ford alone has improved its proportion, but its gain is tiny.

• **84% of Registrations**—For the first six months of 1947, latest period for which figures are available, the Big Three registered about 84% of all cars delivered. In 1940 and 1941, their share was fractionally more than 90%. Individually, here's the way the members of the big three stack up:

Ford accounted for 20% of all registrations in the first half of this year, as against a 1939-41 average of 19.7%.

General Motors slipped off to 42.2% of the total, contrasted with a 1939-41 average of 46.2%.

Chrysler's share was 21.7%, con-

trasted with its 24% for 1939-41. • **Small Producers Gain**—Most independent producers registered advances over prewar in their share of total market. Nash, Studebaker, and Hudson, in that order, each held fractionally more than 3% of all sales during the first six months of this year. With Studebaker this is just about the prewar proportion, as measured by the 1939-41 period. But Hudson and Nash each held around only 2% of the total market in those three years.

Next position is held by the surprising newcomer, Kaiser-Frazer Corp. Its two cars sold 2.2% of the industry's total during the first half of 1947.

Packard, on the other hand, had the same experience as the biggest producers: Its proportion dipped to 1.3% during the first six months this year. Before the war Packard accounted for about 2%. (Other smaller producers bring the figures of each period to 100%.)

• **Steel Shortages**—There is no ready explanation for the dip in the registration proportions of the largest producers. Steel shortages, of course, lie at the root of each company's production troubles (except for Kaiser-Frazer, whose limitation is components, particularly engines). But the interesting and somewhat baffling fact is that the largest manufacturers are apparently unable to use their buying leverage to get at least a proportionate share of available steel.

One explanation may lie in steel in-

industry allocations, which are partially based on historical buying in 1941. At that time major manufacturers cut down their production in greater proportion than did the smaller manufacturers, to make room for war material manufacturing.

• Diversions—Another part of the answer may be the fact that a relatively minor tonnage of steel makes it possible for smaller carmakers to operate in the profit zone. A small amount of sheets diverted from larger accounts will keep independent manufacturers in the black. But divisions affiliated with major producing companies will not be seriously impaired by small slices in their receipts of steel. Mills may consider this when they make up shipping schedules.

Packard's plight, however, proves that this isn't always true. Packard, like Ford, depended heavily on hand mills for sheets before the war. The gradual disappearance of these old-type steel sources has been the big stumbling block in the way of Packard's manufacturing schedules. It got in Ford's way, too, for a while, but Ford obviously found a way to get around it.

Kaiser-Frazer, meanwhile, got around the problem entirely by buying its own steel mill (BW-Dec.21'46,p16), and shifting its specific bottleneck to fabricated parts and assemblies.

BACK HOME FOR SERVICE

One of the auto industry's greatest merchandising campaigns has just got under way—but not to sell cars. The Chevrolet Division of General Motors Corp. has embarked on a nationwide drive to get more service and repair business for its 7,000 dealers. More than \$4-million will be poured into the campaign this month and next—most of it by the dealers themselves.

Today about 32 of every 100 Chevrolet owners bring their repair business back to the dealers from whom they bought the cars. To improve this proportion, the dealers will spend about \$2-million on newspaper advertising and personal letters to Chevrolet owners. An equal amount will be put up as prizes for dealer employees who bring in the most new service customers. Chevrolet itself is spending only \$250,000 or so.

The service market is a rich one to cultivate today. Garage billings are running about three times the prewar level.

And Chevrolet is by no means the only auto maker who realizes this. Last year, for example, Ford used a larger part of the commercials on its network radio show to attract service business back to its dealers. But the Chevrolet campaign is unique in two ways: (1) the large amount of money being spent on it, and (2) the extensive dealer participation.



Boldly awaiting the hurtling baserunner...undaunted by flying spikes...expertly timing his block, catch, and tag...the professional baseball catcher seldom demonstrates his worth to the team more dramatically than when he cuts off runs at the plate.

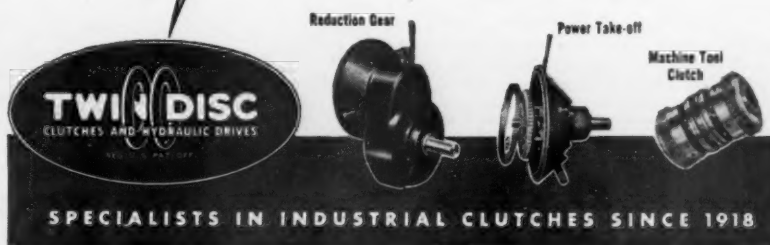
Trained talent, a knack for teamwork, and long experience combined with sound management produce the errorless performances that pay off in victories and dividends. Whether you are interested in transmitting power into useful work or directing a successful baseball team, these factors are vital.

Twenty-nine years of specialized ex-

perience, applied skill, factory teamwork, and progressive management have made the Twin Disc Clutch Company the leader of its league...given it the manufacturing know-how that produces superior friction clutches and hydraulic drives.

You can profit from this accumulation of engineering knowledge and manufacturing skill pertaining to power transmission by asking Twin Disc engineers for suggested solutions of your specific power drive problems.

TWIN DISC CLUTCH CO., Racine, Wis.
(Hydraulic Division, Rockford, Illinois)



While She
powders
her nose..



**ALL THREE
MACHINES ARE TYPING
PERSONAL LETTERS . . .
faster than human fingers
can fly!**

AUTO-TYPIST is one of the most amazing business machines ever built. Any typewriter can be mounted on the mechanism. Then it will type letters—automatically—from two to three times faster than human typists can work. Your typist can operate three or four AUTO-TYPISTS. She can turn out from 300 to 500 letters a day—each letter completely and individually typed with a provision for manual interpolation of names, amounts, dates, or any other "personalizing" references.

**RUSH COUPON FOR AUTO-TYPED LETTER
DESCRIBING THESE AMAZING MACHINES**

Office managers are amazed—typists delighted when they see perforated paper record rolls flashing out the tedious repetitive typing in one-third the time. Sales managers boost responses to their mailings by sending individually typed letters to their prospects.

Rush your name. We will answer with an Auto-typed letter, individually typed for you as a demonstration of the almost human flexibility, and the superhuman speed of this astonishing business machine.

Use the coupon or your stationery.

The Auto-typist

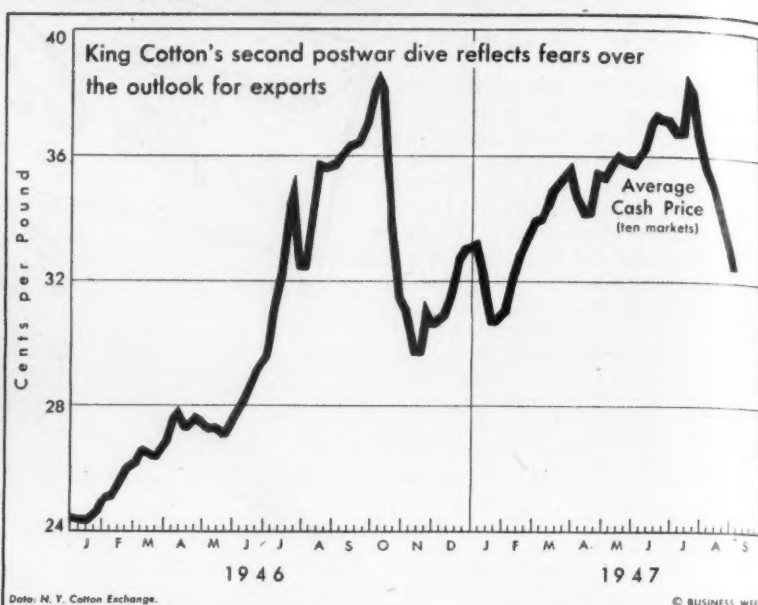
Dept. 99-B-610 N. Carpenter St.
Chicago 22, Illinois

AMERICAN AUTOMATIC TYPEWRITER CO.
Dept. 99-B-610 N. Carpenter St., Chicago 22, Ill.

Write to me on the Auto-typist and send with your specimen letter a circular describing the three models of Auto-typist. There is no charge or obligation.

Name _____
Company _____
Address _____
City _____ Zone _____ State _____

COMMODITIES



Cotton Dives, But It Isn't Fatal

Planters this year will pick a good crop and get high prices for it, in spite of second postwar spill. Cotton men are more fearful of markets—particularly exports—than they are about supplies.

Cotton planters can count on doing very well this year. Prospects are that most of the belt will pick a good crop—one that will bring high prices (high, at least, by any measure between the two world wars).

• **Below Estimate**—The government crop report this week didn't quite come up to average trade estimates for a 1947 harvest of about 12,000,000 bales. The official forecast, based on Sept. 1 condition, pared that to 11,849,000 bales, only 5,000 bales up from the prediction a month ago.

Yet a crop that isn't quite up to "normal" isn't causing so much concern as it might have a few months back. In fact, both dealers in raw cotton and manufacturers of cotton textiles are more fearful about markets than they are over supplies of fiber.

• **The Crucial Point**—Export demand will be the crucial point. Already it has fallen off from the extraordinarily high levels reached earlier this year. For example, incomplete Census Bureau figures indicate that a big part of July's drop in exports can be traced to raw cotton and textiles.

Value of fiber and manufactures sent abroad in July was \$125.9-million according to this compilation, against \$175.7-million in June. Raw cotton

alone accounted for a big slice of that drop; it slid from \$49.7-million in June to \$12.6-million in July.

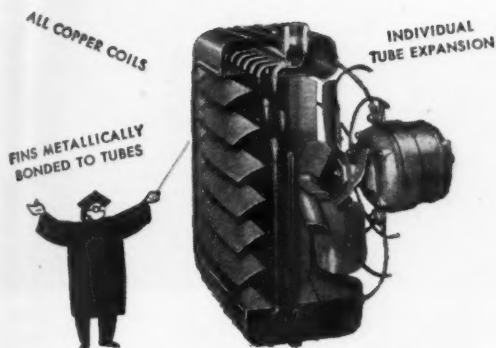
• **British Shopping**—Britain is expected to shop more and more in the sterling area for its mills' needs, thus conserving its few remaining dollars. Similarly, the Tight Little Isle will be tighter than ever on importation of cloth. It will try to fill the new and skimpier clothing ration at home, and to increase exports at the same time.

Then, too, other markets for American cotton and textiles are drying up. It's not that demand is satisfied but that dollars are drained. Much of western Europe is in this spot. Amounts procured by our government for Japan and Germany may be expanded (page 116), but they won't make up the difference.

• **Adequate Supply**—Thus a crop of nearly 11,850,000 bales plus a carryover of old cotton somewhat short of 3-million bales may be a very adequate supply in the 1947-48 consuming season.

Home needs are still large—how large depends mainly on consumer income and purchasing power. A middle-of-the-road guess would be about 8½-million bales. Even if the foreign market can take the hoped-for 2½-million bales, the expectation is for a carryover 600,000

How Smart are You about Unit Heaters?



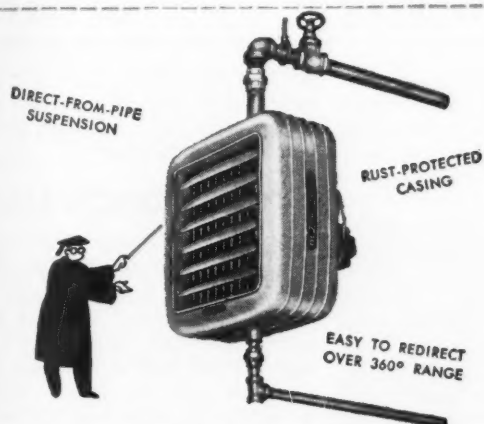
1. What's the INSIDE Story?

Modine's controlled brazing process results in one piece, integrated coil construction, eliminating all weak spots. With no screwed or expanded joints, no gaskets or bolts—you get greater strength, longer life, better performance!



2. What Price BEAUTY?

These functionally designed, stream-lined Modines are easy on the eyes — and ears too! Their heavy-duty, totally enclosed motors are noise-proofed for hush-hush service, certified for quietness by laboratory sound ratings.



3. Is Installation EASY?

Forget about expensive supports, extra labor costs with Modine. Patented center supply and return connections mean unit can be suspended directly from supply line with complete safety—installation savings up to \$10 per unit.



4. How about PERFORMANCE?

You get uniform temperatures precisely controllable for perfect comfort, low cost, because Modines give you flexible heat delivery. Like light, you can beam, flood or gently diffuse heated air where and when you want it.

M-O-D-I-N-E spells the Best in Unit Heating



47 basic Modine capacities mean the right unit for any application. Horizontal Delivery Types for general industrial applications. Vertical Delivery Types for overhead installation. Power Throw Types for special high-velocity use. Buy Modine and you buy the quality unit heater — first in beauty and performance. Write for complete information, send in coupon at right.

Modine UNIT HEATERS

MODINE MANUFACTURING CO.
1508 Dekaver Street
Racine, Wisconsin

YES! I want all the facts about Modine's Integrated Unit Heater Line. Please send me complete information.

NAME
ADDRESS
CITY
STATE

DE WALT "CUTMASTER"

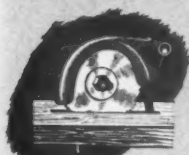
—for fast
precision cutting!



It's a
cut-off saw!



It's a
miter!



It's a
rip saw!



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THERE WERE JUST TOO MANY TOMATOES

A South Jersey bumper crop of tomatoes has produced a bumper-to-bumper rush to Campbell Soup Co.'s Camden (N. J.) plant. For the past three weeks the cannery employees worked around the clock seven days a week to handle the record-breaking deliveries. Campbell's contract prices are the same as last year: \$39 a ton for first quality, \$29 for second. But some farmers, having spurned contracts this season, are singing the blues. Last year, due to a short crop, nonsigners hit the premium jackpot; this year there's a glut, and noncontract growers are getting only about 50% of contract prices. Some roadside stands are retailing tomatoes as low as 25¢ a basket.

to 800,000 bales larger next Aug. 1 than last.

• **No Deep Cushion**—And if domestic mills also experience a drop in foreign demand for cloth, their operations may run below present expectations. Last spring, when stores cut their textile orders sharply after a disappointing Easter, manufacturers' operations fell only moderately because of surprising export volume. In the next few months, there is likely to be no such deep cushion.

Factors like these are regarded as playing a big part in the recent drop in cotton prices. The crash of the cotton market last winter was due to speculative factors (BW—Nov. 23 '46, p. 36), not to declining world demand. Then, after the slump in textile operations, domestic demand for cloth snapped back smartly. King Cotton rose almost to the exalted estate he had enjoyed after the end of price controls on textiles.

• **Short-Lived Prosperity**—But this prosperity once again has proved short lived. Cotton has had its second post-war spill (chart, page 42). Even the momentary surprise on Monday of a crop report below traders' expectations braced the market only for a few minutes; before the day was out, gains had been turned into moderate losses.

As things stand, the cotton price is little more than 3¢ above parity. (The Dept. of Agriculture parity figure for Aug. 15 was 29.14¢ a lb.) But it still is more than 5¢ a lb. above the support

level set by Congress. So the government isn't likely to have to stage a rescue party any time soon unless export markets collapse.

PAPER VS. COTTON BAGS

Makers of cotton flour bags are haunted by fears that their product may follow the flour barrel into oblivion.

For years, to cut some cost corners, bakers and other large users of flour have shipped their empty bags back to the flour mills for reuse. Now state authorities are beginning to crack down on reuse of bags. Minnesota, big flour milling state, led the parade. Reused sacks, the state ordered, must be laundered as well as fumigated to kill pests. Other states are following suit. Flour millers, who have long regarded the reused sack as a nuisance, raised little objection. And paper bag makers jumped with joy. Long ago they captured the business for the smaller-size flour packages sold to the housewife. They have been eager to sell the 100-lb. baker-size bag to the mills.

The plum over which the cotton and the paper bag manufacturers are fighting is a juicy one. American bakers require about 150-million 100-lb. bags a year. The textile people claim the bakers prefer cotton bags; the paper people claim their product costs about one-third as much as the cotton sack.

The textile people see one out. If they can get the bakers a sales outlet

their used cotton bags, the cheaper product might appear a less attractive bargain. Housewives in rural areas know that used cotton sacks can be made into everything from dishtowels to dresses (BW-Jul.15'44,p102). Now the cotton bag makers are out to bring the idea to city housewives. The Textile Bag Manufacturers Assn. is testing its plan in Indianapolis. Bakers are selling their used cotton bags directly to housewives, or to grocery stores for resale. Each bag contains more than a yard of 37-in. wide material. Prices assertedly range below that of comparable quality yard goods.

Sugar So Plentiful More May Go Abroad

The sugar situation has progressed from famine to feast. The commodity now has every prospect of becoming so plentiful that plans are being made to ship it abroad.



Reason: since the end of rationing, there has been quiet on the U. S. sugar front. Consumers are getting all they want, aren't hoarding. Coming along is a record Cuban sugar crop of about 10 million tons (BW-Jun.21'47,p40). Some importing countries aren't buying the sugar that the international food processors have allotted to them. France, for instance, has some 150,000 to 200,000 tons on the books that it hasn't bought.

Adds Up—All the surplus sugar isn't in the bag yet. But it looks like a sure thing. So government officials consider it as a new addition to the limited list of foodstuffs that can now be bought and shipped economically to occupied areas by the Army, and to other countries getting relief supplies via the State Dept.

The Agriculture Dept. was deluged last week with inquiries about an impending "big deal" involving shipment of large quantities of sugar to the Far East. Apparently, rumors that government officials were analyzing this supply-demand situation gave rise to the story. However, until Commodity Credit Corp. announces a specific purchase for the Army or State Dept., officials indicated that any increased sugar shipments would be only a minor part of the over-all foreign food shipment programs.

Counting Calories—Sugar is a natural cause of its high calorie content per pound. Also, a sugar calorie is less expensive than the calorie of wheat flour made into bread. The State Dept. and the Army have always used cost-per-calorie as their most important criterion in making food purchases. Sugar could complement a grain-heavy diet to some extent.

Sure, I'm an Easy Going Guy

"Don't get me wrong, I put in a hard day's work. But when business calls for travel, I take the line of least resistance—the easy way... by train.
 Then I'm completely relaxed, get a good night's sleep... and what better than the diner... stroll around at my leisure. It's sort of like a vacation on wheels. And when I get where I'm going, I'm really fit to carry on."
 * * *
 Sounds sensible, doesn't it? Next time you plan a trip west or east, ask about Union Pacific's daily Streamliner and other fine service. It's the easy, enjoyable way to travel.

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'City Ice'
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"City Ice" Cold Storage scientifically protects and preserves freshness and flavor of June-harvested perishables until the very moment of distribution. Check your space needs with us now . . . there are

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ST. LOUIS, MO.
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ST. LOUIS, MO.
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**NATIONAL
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SPRINGFIELD, MO.
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& Refrigerating Co.

**KANSAS CITY,
KAN.**
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TRUCKS



BIG TRUCKS, carrying more with less manpower, gain popularity on assembly lines

Shift to Heavy-Duty Models

Larger trucks seem to be increasing their share of market. One reason: Higher wages for drivers spur users to carry bigger loads per vehicle. Total output, at record level, still below demand.

"If 50,000 trucks could be materialized out of thin air for you today, would that solve your problems?"

This question was asked of the sales manager of one of the largest truck makers recently. The truck man answered with a snort:

"That wouldn't help us at all. We need 250,000 trucks today—not 50,000!"

That, in a nutshell, is the situation in the truck industry. An average year's backlog stands on the books of the truck makers.

• **Record Output**—This shortage hangs on in spite of output that is far above any previous records (BW—Mar. 1 '47, p34). Sheet steel is not required in as large a proportion as in passenger cars; hence truck makers have been able to do much better than the auto builders.

During the first half of this year, for example, 620,489 factory sales of trucks were recorded. In 1941, previous record year, the total for the entire 12 months was 1,094,261. The 1947 showing can hardly fail to put the 1941 mark well in the shade.

• **Small Sizes Shortest**—Even so, truck makers are falling behind demand in some categories. Door-to-door delivery

units, requiring more sheet steel than any other type, make up one such group. Another is panel delivery trucks.

Only in the heavier truck sizes is production making real inroads on the backlog. Even here, the stability of the market for a long time ahead seems assured. According to the American Trucking Assn., a million trucks are required today to maintain the nation's motor carrier fleets at 1941 efficiency. (However, many a sales office took the size of the estimate with a grain of salt.)

• **Shift**—The comparative scarcity of lighter trucks is one factor, though only a minor one, that is causing what seems to be a gradual drift from smaller to larger trucks. A more important explanation is the effect of labor cost. Today truck users see an advantage in hiring one driver for a big truck, rather than two drivers for two trucks of the size.

Another boost may be given to the trend toward heavier trucks. A new North Carolina law provides that 10,000-lb. gross vehicle weight loads can be hauled only by trucks of 300-cu. in. piston displacement or more.

The reason was fairly simple: For

makers wanted more powerful units on the road to answer complaints—which might have churned up legislation—that underpowered trucks were holding up long lines of traffic on hills. New law eliminates use in North Carolina of light, popular-make trucks which are "souped up" to handle big roads. If the idea spreads to other states, sale of big trucks will get another

Top Producers—The domination of the light truck field by Ford, Chevrolet, Dodge puts those makers at the top in that order among the manufacturers. International is fourth; this top has not changed for several years. Beyond that, however, the order has seen a marked shift in makeup as compared to prewar. The next three places are held by Studebaker, Willys, and GMC. The former, before the war, was a fairly small builder of trucks; Willys' jeep output brings it into the top circle. Reo (another company whose pre-1941 volume was definitely best), White, Mack, and Diamond are scrambling for succeeding places.

Foreign Market—Exports are a big factor in the truck supply situation. During the first half of this year they amounted to 148,941 trucks, buses, and trailers. That was almost 24% of total output.

Increased aid to Europe might complicate this setup. There's even a rumor circulating around Detroit that a quota reduction of trucks for export "off the line" of production schedules is being considered. That would mean an assured supply to fill export demand, leaving the domestic market scrambling for what was left.

Truck Stretchers

Equipment makers doing a big truck business this year as light trucks are adapted for heavy work, big trucks specialized.

A little-known segment of the automotive industry—truck equipment manufacturing—is well on its way to doing a big business in its history this year. Versatility—Reason for the boom is that this industry vastly increases the utility of trucks. Special equipment makes trucks of light-weight ratings capable of heavier jobs than they are designed to do efficiently. Or it can be used to stretch big trucks for highly specialized

A truck buyer usually spends as much on special equipment as he does on the truck itself. A \$2,000 medium-weight truck will be augmented by at least \$2,000 worth of special equipment. As truck sizes go up, however,

VULCANIZED STARCH

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Vulca* 100
Vulca 60
Vulca 30

starches?

DESCRIPTION: VULCA starches are ether derivatives of ungelatinized starch. They are composed of starch granules — which in water — are resistant to the swelling action of heat or chemicals. Grades 100, 60 and 30 indicate the degree of the resistance to swelling — VULCA-100 is the most completely resistant. If desired, intermediate grades other than 60 and 30 can be supplied.

PHYSICAL APPEARANCE: A white powder resembling ordinary powdered cornstarch.

CHARACTERISTICS: pH in suspension in distilled water 7.5 — 8.0. Non-toxic. Practically odorless and tasteless. Fineness as indicated by screen analysis:

Mesh	% retained
80	4.7
100	4.4
150	4.6
200	22.4
over 200	63.9

Moisture content at 50% R.H. 8 1/2 — 9%.

RESISTANCE TO SWELLING: The following table indicates the inertness of VULCA-100 to ordinary starch gelatinizing agents. With the exception of cold water, all reagents listed will completely gelatinize ordinary starches.

100 ml. of reagent to 12 1/2 gms. Vulca-100	ml. of settled starch observed after 24 hours
1. water — room temp.	27 ml. — standard
2. water — heated to 100° C	42 ml.
3. Zinc chloride (4 molar)	70 ml.
4. calcium chloride (4 molar)	65 ml.
5. ammonium thiocyanate (4 molar)	51 ml.
6. formic acid (90%)	60 ml.

VULCA-60 on cooking in 6 parts of water gives a heavy salve-like paste. In 8 parts water a fluid suspension results in which little settling can be observed.

VULCA-30 gives a salve-like paste when cooked in 8 parts of water; and a fluid suspension when cooked in 10 parts of water.

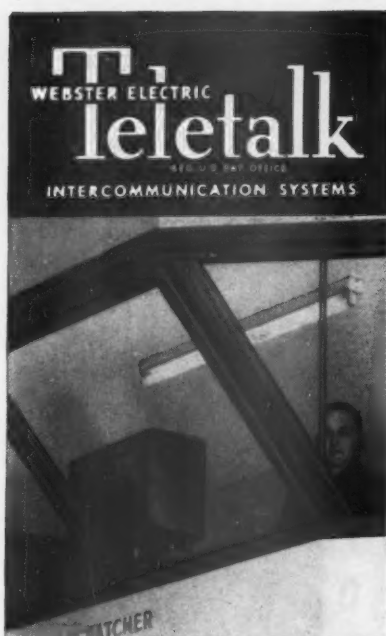
POSSIBLE APPLICATIONS: Only VULCA starches can be steam sterilized without any change in their powdery appearance. VULCA-100 — which is resistant to degradation by acids and amylolytic enzymes — can be used as an inert, non-toxic filler or dusting powder for food or industrial use. VULCA-60 and VULCA-30 offer product improvement possibilities to makers of dry cell batteries, paper coating, tub or beater size, pressured soups or gravies, massage creams, printing gums.

WE'RE READY to match our research and laboratory efforts with yours in further exploration of VULCA starch applications to your products. Address: National Starch Products, Research and Development Laboratories, 270 Madison Avenue, New York City. Plants: Dunellen, N. J., Chicago, Indianapolis and San Francisco. In Canada: Meredith, Simmonds & Co., Ltd., Toronto and Montreal. In Holland: Nationale Zetmeelindustrie, N. V. Veendam.

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A Graybar Dealer Has an Interesting Story on the Use of Teletalk by Garages

● Let the Graybar appointed dealer in your vicinity show you how "Teletalk" can increase the productive time of every department in your garage, office, store or plant.

They are located in principal cities and can quickly put to work for you the results of experience gained in hundreds of installations of this super time-saving equipment.

These "Teletalk" specialists will study your specific needs and suggest a layout that will best add to the efficiency of your business.

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Call your nearest Graybar Branch as listed in the classified section of your telephone directory for the name of your closest dealer. Call him today. Don't put off finding out what "Teletalk" can do for you.

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Graybar Building, New York 17, N.Y.



special equipment expense diminishes in proportion.

● **\$2-Billion Business**—Truck equipment means everything from special axles and bodies to such minute items as safety flares for use when a vehicle breaks down on the highway. Probably 75 major manufacturers are "majors" in the field. Perhaps at least a few hundred more live on the fringes. Together, they may do as much as \$2-billion in total retail sales this year. That is roughly equal to the selling prices of the million trucks which will be marketed in 1947.

Aggressive truck dealers harp on truck equipment for two reasons: (1) it provides vehicles fitted precisely to their customers' specifications; (2) it produces higher profits per dollar for them than the trucks themselves.

● **Boosting Efficiency**—Here is how a dealer intent on doing a thorough job works:

He will show the buyer of a 1½-ton truck that a two-speed axle will make it operate more economically. (About 90% of Ford trucks made today, trade gossip says, are factory equipped with two-speed axles.) To make it do more work, he may suggest other additions. Among them: reinforcing the frame with heavier members, installing larger wheels and tires, putting on a special body. These, in essence are characteristic truck equipment items.

The result: a truck which may be able to carry safely twice the load it was originally aimed at handling.

The dealer will point out that two \$2,000 trucks, each equipped with about \$2,000 worth of equipment, will do at least the same amount of work as a single \$8,000 truck. The advantage is that the operator has the flexibility of two trucks instead of one.

● **Pros and Cons**—The big truck manufacturers are partially sold on this approach, partially not. They feel that trucks equipped with special bodies should have the special underpinning which is needed for the loads those bodies carry. But they basically oppose the stretching of a truck of a specified size out of its class. If it is to be considerably enlarged, they reason, the buyer might be better off to get a heavier truck in the first place.

Enlargement can be justified, however, on the grounds that the customer saves money. Truck men say it's a matter of investment ability. The specially equipped truck will cost less—and will have a proportionately shorter life—than a heavier vehicle doing its normal job. But it provides a means of business for an operator which he otherwise might not be able to afford.

Truck equipment is distributed by a scattering of organizations throughout the country, mostly representing noncompeting lines in their sales ter-



SPECIAL AXLES for more flexibility and traction are typical of equipment to transform standard truck models.

ritories. Many function as garages as well as sales agencies. They receive vehicles from the factories, which were shipped on dealer account, and outfit them before delivering them to the dealer.

● **Biggest Operator**—One large-scale operator considerably overshadows the others in the truck-equipment field. Although it isn't even a manufacturer, Truckstell Co., Cleveland, is said to do about 12% of the total special equipment business of the country. That is an apt tribute to the idea of its founder, Don W. Meyer, back in 1937.

Meyer worked for Eaton Mfg. Co., building up distributor outlets for two-speed axles. He found many shops and sales groups too small to handle the Eaton line exclusively, or to give it sufficient time and study when pooled with other lines.

Thus he got the idea of setting up a distributor group which would deal exclusively in a group of noncompetitive lines. Today Truckstell includes 40 distributors, each a part-owner of the firm along with Meyer. Their merchandise, made by 15 manufacturers, runs all the way from four wheel-drive conversions to protective guards for front grilles. It is sold through about 15,000 retail outlets.

STEEL LINE TO BE DROPPED

Minneapolis-Moline Power Implement Co. is going out of the steel business to concentrate on farm machinery.

For nearly 50 years the company has been fabricating structural steel and making farm implements in Minneapolis, Hopkins, Minn., and in Moline, Ill.

Discontinuance of structural steel work may take some time, according to W. C. MacFarlane, president. It is expected that employees will be absorbed by other departments.

WEBSTER ELECTRIC Teletalk REG. U.S. PAT. OFFICE INTERCOMMUNICATION SYSTEMS

Close up view shows Mr. Pryor tabulating information received over the "Teletalk" unit in the control tower.



Despatcher in this Minneapolis Garage Controls Repairs without Leaving His Desk ... He Uses "Teletalk"

● At the W. R. Stephens Company Buick Garage in Minneapolis, it was formerly necessary for mechanics to come to the repair office after each job to take out another sheet of instructions with another car. Now the car is delivered to the working space and when questions arise, they are answered by just using the "Teletalk." This allows close scheduling with no time lost between jobs—many man hours are saved.

Whether it is a garage, a machine shop, a tool crib, an office or store, "Teletalk" can do this same kind of time-saving job. It can improve production and accomplish more by its use.

"Teletalk" is made in a variety of models to meet the requirements of all types of businesses. Their top quality construction insures high fidelity of tone—with voice

transmission that can be readily recognized. "Teletalk" is easy to operate—all that is necessary is the flip of a key.

If you are interested in greater office efficiency and a savings in time, contact the nearest distributor listed in the classified section of your phone book—or write Webster Electric Company, Racine, Wis.

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your
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Book
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WEBSTER ELECTRIC
For your convenience, "Teletalk" dealers and distributors are listed in the classified section of phone books in principal cities under a trademark listing. If you do not find it—write direct.

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COOPERATIVE SKILLED LABOR immediately available for all types of industry. LOW COST FUEL, POWER—Coal, oil, gas at low rates. Ample electric power, with vast Bureau of Reclamation hydro-electric projects soon to come. ABUNDANT RAW MATERIALS for every type of industry. Plentiful natural resources and water supply. HEALTHFUL ALL-YEAR CLIMATE made for living. Mild, open winters. Cool, invigorating summers. Average 300 sunny days a year.

Production Costs 20% to 25% Less Says Former Eastern Manufacturer



W.G. Foster, Pres.
Wallin Foster
Associates, Inc.
Denver, Colorado

"The class of labor out here will just naturally turn out more work per day. This is due to the fact that they are all good, clean, industrious Americans, and also to the fact that the climate is so invigorating that they are in better physical condition to turn out the work. I would say we are making our product 20% to 25% cheaper than we ever did back East before the war."

This unsolicited letter shows why more and more manufacturers are finding it profitable to locate their factories in Colorado—and why, according to the National Bureau of Census, the value of manufactured goods per wage earner in Colorado is 29.6% above national average.

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300 SUNSHINY DAYS A YEAR

READERS REPORT:

What's in a Name?

Sirs:

At the conclusion of the article, "Prefab Makers Buckle Down" [BW—Aug. 23 '47, p18], you note the industry seeks a catchy name to replace "prefabricated" because of its wartime connotation of flimsiness.

It strikes me that "home-made" might serve as a worthy substitute.

The name connotes a completed dwelling. In addition, it has the reassuring ring of quality materials and individual integrity with which Americans fondly associate all home-made goods.

"Home-made" is such a commonly used catch phrase that its direct application to the source of ingrained American faith in the products of that unit should have a strong pull on home buyers.

Malcolm R. McCrea

The Saginaw News
Saginaw, Mich.

Sirs:

You say the prefab housing industry wishes someone would invent a catchy name to replace "prefabricated."

Why not the simple term "ready-made," which everyone understands? Ready-made, ready to live in. Why must it be catchy?

Dorothy Sheppard

S. S. Silberblatt, Inc.
New York 19, N. Y.

Sirs:

Why not "ready-made houses"?

Arch Sales Co.

1406 E. 47th Ave.,
Denver, Colo.

Expansion and Jobs

Sirs:

In your issue of Aug. 9 I note two statements which I just cannot reconcile.

On page 6 you say: "Industrial expansion in the United States, now running just under \$4-billion quarterly, is nearly double the peak wartime expansion rate. . . ." Then, on page 10, you say: "Seasonal gains in over-all employment obscure the fact that manufacturing isn't expanding."

R. Allen Pelton

294 South Wilson St.,
Pasadena 5, Calif.

Sirs:

... Which page do I believe?

Albert G. Lauzon

V.-P., Buckeye Tools Corp.,
Dayton 1, Ohio

The page 6 statement about industrial expansion referred to buildings, machines, and other equipment. The page 10 statement referred to the number of workers employed in manufacturing. There is not necessarily a strong correlation between the two—that manufacturers can be putting up a lot of new buildings, etc., without necessarily employing a lot more people in manufacturing operations.

Facsimile Prices, Methods

Sirs:

In your article entitled "Radio Facsimile Gets Color" [BW—Aug. 16 '47, p40] you say:

"Finch expects that receivers can be built to sell at about \$100. This is considerably below the cost of the facsimile receiving equipment currently on the market."

We demonstrated our 4.1 in. facsimile recorder and priced it at \$100 at an exhibit held in May, 1947. . . . We have made innumerable quotations and many sales at this figure.

E. E. Leggett

Alden Products Co.,
Brockton 64, Mass.

What the price statement meant to convey: Finch Telecommunications Inc., expects to be able to sell its new Colorfax facsimile receivers at considerably less than conventional Finch facsimile receivers now on the market.

Sirs:

The color facsimile system as described in your Aug. 16 issue uses four crayons which are mechanically actuated by electromagnets to make colored dots and lines on the paper.

Recently a patent has been allowed to me ("Color Facsimile and Diagram Recorder," filed July 15, 1945, Serial No. 606,053, to be issued Nov. 21, 1947) which describes electronically operated color receivers. In one arrangement electrolytic paper is used (a kind similar to the paper now used in black and white facsimile recorders) and four parallel helix knives of different metals, each metal giving with the humid paper one of the four colors. Such a system can work with higher speed than one with mechanically operated crayons.

This way of recording signals is old. As long as 73 years ago—June 1, 1874—Thomas A. Edison filed Patent 160,580, describing a solution for chemical telegraph paper, giving a blue line with a pen made of iron. On a certain paper a nickel electrode gives a bright red

For Any Atmosphere—

Splashing Liquids—

Century 30 horsepower Splash Proof motor in a textile mill.

Explosive Gases—

Century 20 horsepower Explosion Proof motor driving a gasoline loading pump.

Clean Surroundings—

Century 60 horsepower open rated motor drives an air compressor located in clean surroundings.

... There's a CENTURY MOTOR That Will Help to Maintain Your Production

From Century's wide range of types and sizes you can select the right motor, properly protected to satisfy all popular requirements. You can be confident that the right Century motor on your equipment will provide a long life of satisfactory performance.

The unique construction of Century *Splash Proof* motors makes them safe to use wherever there are splashing liquids. The vital parts of the motor are kept dry even when the frame is washed with the full force of a hose.

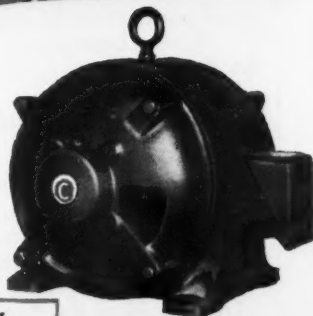
Century *Explosion Proof* motors protect life and property in hazardous atmospheres charged with explosive dusts or vapors.

Century *Totally Enclosed* motors resist the hazards of abnormal amounts of dusts, powders, grit, oils, acids and alkali fumes.

Century *Open Rated General Purpose* motors meet the needs of most installations where operating conditions are relatively clean.

Century builds a complete line of fractional and integral horsepower electric motors in the popular sizes, to meet the requirements of industrial production, commercial and appliance needs.

Specify Century motors for all your electric power requirements.



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ROSS Heavy Duty **LIFT TRUCK**

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Here's typical ROSS performance. It's the kind that has convinced one manufacturer after another that ROSS is the lift truck they can depend upon to solve their big-load handling problems most efficiently.

Remind those responsible for your materials-handling operations to investigate ROSS Heavy Duty LIFT TRUCKS. Three types, six models. Capacities, 5,000 to 18,000 pounds. Gasoline power. Pneumatic tires.



THE ROSS CARRIER CO.

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line, a chromium electrode a bright violet line and a tin electrode a blue line. Only preliminary experiments for color facsimile receivers have been made so far, but there is no doubt that this inertialess recording method will work as well with facsimile as it worked with other recorders.

The other system, as described in my patent, is recording color by means of colored ink in capillary pens, traveling together across the chart. The ink is thrown out by electrical discharge much in the same way as described by Lord Kelvin in a U. S. patent of the year 1869 for use in a submarine telegraph recorder and recently used by William C. Hubner in his "Electrochromograph System" of printing (see the Paper Trade Journal, Vol. 123, July 4, 1946, page 33). A four-color electrostatic printing press is now under construction.

Unfortunately I am not in a position to demonstrate a color facsimile receiver working with my system. The transmitter would be about the same as in the Finch system; only the receiver is different, either using the wet type of paper or ordinary paper and capillary pens with ink.

Dr. George Keinath
36 Knollwood Drive,
Larchmont, N. Y.

Time-Lapse

Sirs:

In connection with your report on time-lapse photography [BW—Jun. 21, '47, p21], you may be interested in this.

Back in the early 'teens, the late John B. Hawley, whose son is the head of the Hawley Pump Co. of Minneapolis, had built to order by the Eastman Kodak Co. a combination movie camera and microscope for use in time-lapse recording of the life cycle of algae. So far as I know, Mr. Hawley's invention, for which he took no patent, was the first of its kind in this country.

A. W. Grant
Managing Editor,
San Antonio Express,
San Antonio, Tex.

Farm Income, Net and Gross

Sirs:

On page 34 of your July 26 issue, a statement of "National Income by Distributive Shares" is shown and an item for farm income is listed therein as approximately \$15-billion for 1946.

On page 10 of the Aug. 2 issue, reference is made to 1946 farm income being \$25-billion.

I assume that the figure mentioned in the Aug. 2 issue refers to gross income, whereas the amounts shown in the Dept. of Commerce schedule are net income. However, I would like to

the verification of this assumption on you—and also, if possible, just what factors are taken into account in arriving at the net farm income as against gross income.

John A. Klutsch
Chapman & Smith Co.,
Chicago 7, Ill.

farm income of \$15,213,000,000 for 1946, as shown in the July 26 issue, represents gross farm receipts, plus imputed income, minus all production expenses. In other words, the Dept. of Commerce added together what the farmer got from the marketing of his crops; plus what he got from the government in the form of parity and other payments; plus the amount which is supposed to cover what the farmer wears and eats of his own produce; and another "imputed" amount to cover what he would have paid if he had not owned his own property. From all these calculations production expenses are subtracted. In the Aug. 2 issue we speak strictly of net farm income. This figure consists of what the farmer gets from selling his crops plus what he gets from the government as parity and other payments. No production expenses of any kind are subtracted. Therefore, the July 26 figure is not a true gross because no imputed income has been added).

Foreign Buyers

In your list of foreign missions operating in this country buying materials and equipment for foreign governments (Aug. 16 '47, p98), you have shown the New Zealand Government Trade Commission, giving the name of P. L. Laing and stating that he buys for the government, currently purchasing industrial equipment. P. L. Laing is technical adviser to the New Zealand Trade Commissioner in U. S. Would you, therefore, please send this information to read: "New Zealand Government Trade Commissioner, 1800 K St. N.W., Washington D. C." and state: "Buys on request of the government only."

R. W. Marshall
New Zealand Govt.
Trade Commissioner
Washington 6, D. C.

In your Aug. 16 list of foreign governments' buying representatives in the U. S., you incorrectly used "Dominica" as a heading referring to the Dominican Republic.

J. Harold Smith
M & M Bldg.,
Houston 2, Texas

We meant the Dominican Republic.

18-8

AND THE ODDS ARE

3 TO 1.....

THE odds are 3 to 1 that castings made from one of the famous Circle ① "18 and 8" alloys will do a better and more practical job in resisting corrosive conditions than those made from any other formula.

We pour a lot of alloy tonnage out of our electric induction furnaces in the course of a month. Some of it is very special stuff. All of it is carefully matched to the exact service conditions of the equipment and machinery into which the castings are fabricated. A study of our records proves beyond a doubt that our Circle ① "family" of "18 and 8" alloys tops the list as the practical, economical corrosion resistant material.

The Nominal Analysis and Nominal Physical Properties of one of these, Circle ① 22, are given at left. However there are many variants of this approximate analysis which make possible its successful application to a wide range of service conditions. They are summarized on the new Circle ① Alloy Data Sheet, sent upon request.

LEBANON CIRCLE ① 22

NOMINAL ANALYSIS

Carbon Max.	0.07
Silicon	1.25
Manganese	0.75
Chromium	19.50
Nickel	9.00

NOMINAL PHYSICAL PROPERTIES

Tensile Strength	75,000
Yield Point	36,000
Elongation in 2"—%	50
Brinell Hardness	135

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"In The Lebanon Valley"

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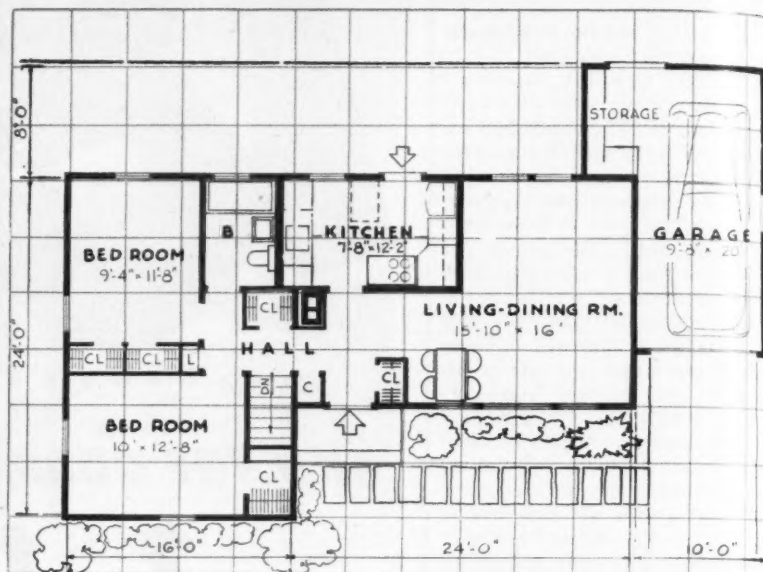
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Company

Position

(For Canadian price, write McGraw-Hill Co. of Canada Ltd., 12 Richmond Street E., Toronto 1.)

PRODUCTION



HOUSE PLANS drawn up within the framework of standardized grid of 4-ft. dimensions (which divide into 4-in. units) can mean less on-the-spot cutting and fitting, lower costs.

Plan for Attack on Home Costs

Building material makers push "industry-engineered homes." Typical layouts, based on 4-in. module, lend themselves to standardized, mass-produced, pre-cut materials and parts.

Can't the engineering principles of standardization be applied to small home construction? Wouldn't such principles, properly applied, reduce on-the-site construction costs regardless of the existing general price level?

Manufacturers of building materials and supplies, and retail lumber dealers throughout the country, voice an emphatic "yes" to both questions. And through their associations they are doing something about it.

• **Opening Gun**—This week, the Producers' Council (a national organization of building materials and equipment manufacturers) and the National Retail Lumber Dealers Assn. fired the opening guns in a nationwide campaign to sell architects, builders, dealers, and a willing public on the principles of "industry-engineered homes."

Chief beneficiary of such a program—aside from the harried home seeker—will be the little home builder. Acting as salesman, foreman, and contractor, the little builder puts up one to 10 houses a year. But on a nationwide basis, this group annually builds more houses than any other. If the program goes over, he will be able to make savings that will put him in a better competitive position. The big builders have

generally developed their own shortcuts on a production-line basis. And they're backed up with carefully timed purchase and delivery schedules of equipment and materials.

• **Base**—The main idea of "industry-engineered homes" is this: Coordinate dimensions of materials and equipment in such a way that they can be put into a structure with a minimum of costly cutting and fitting. To make the job of coordination easier, measurements are all in multiples of 4 in. The industry calls this 4-in. unit a 4-in. module. Brick, tile, masonry units, wall board, wood and metal doors and windows are now coming on the market in modular sizes.

House dimensions are to be coordinated with the dimensions of standard materials. For convenience a basic module of 4 ft. has been adapted for house layouts (sketch, above). The sponsors reason that if architects and builders work on such a modular basis, costs can be cut.

• **Design Variations**—Neither architect nor builder is hampered in design: Any house can be planned to fit the 4-in. and the 4-ft. root dimension.

To demonstrate the application of the basic principles, the associations jointly

The TIME Advertising Quiz No. I

HOW DO YOU RATE AS AN ADVERTISING EXPERT?

HERE'S A WAY TO TEST YOUR KNOWLEDGE.

(Answers below, upside down)

1.

E. T. Wright Company, maker of Arch-Preserver Shoes, advertises in TIME to reach three of these five groups:

A. U.S. postmen who walk millions of miles every week delivering the 1,091,574 subscription copies of TIME. ☐

B. 1,800,000 TIME-reading men who occupy positions of leadership and influence "in all walks of life"—and do a lot of recommending to their friends. ☐

C. Thousands of TIME-reading doctors, for their possible prescribing or recommending influence on the use of Arch-Preserver Shoes by their patients. ☐

D. Archbishops, archdukes, architects, archeologists and archers. ☐

E. Best customers of leading department stores and men's wear stores—proved time and again to be TIME-readers. ☐



2.

The H. & S. Pogue Company, leading Cincinnati department store, recently ran a fashion advertisement in TIME for four of the following reasons:

A. A survey showed that Pogue's own customers vote TIME their favorite magazine. ☐

B. The advertisement would be an excellent springboard for a store-wide promotion of TIME-advertised products. ☐

C. TIME reaches 1,500,000 high-income women across the nation. ☐

D. To help promote the new longer skirt styles with the slogan, "Pogue skirts will go down in TIME." ☐

E. To build prestige and good will for Pogue's, among the many TIME-reading executives of companies who supply the store with merchandise. ☐



3.

Steinway & Sons advertise regularly in TIME for three of the following reasons:

A. To sell new Steinways to the 900,000 well-off TIME families who have no piano, and to the 600,000 who own a piano of some kind. ☐

B. To tell TIME-reading apartment dwellers about their new fly-weight "Infant Grand." ☐

C. To establish among business executives the prestige of the piano industry in general and Steinway in particular. ☐

D. To register their new slogan, "Steinway to Paradise." ☐

E. To reach the many TIME-reading executives who can influence the purchase of musical instruments for schools, churches, clubs, etc. ☐



You can do one thing with your advertising in many magazines. But you can do many things with your advertising in one magazine—because that one magazine has collected as its audience a primary readership of 3,000,000 people who are many things to any advertiser.

There's ALWAYS an EXTRA REASON for Advertising in



Every fact about the TIME audience in this advertisement is correct. The right answers are: Question I, B, C, and E.; Question II, all but D.; Question III, A, C, and E.

developed typical house plans. Two nationally known architects, Randolph and A. Gordon Lorimer, supervised work on them.

Three basic designs were developed. There are four variations of the designs. The proposed layouts include: a one-room unit; a two-story, two-bedroom unit; and an L-shaped two-bedroom unit. Floor space is about one-third less than the FHA minimum for insured loans. Variations involve the location of basements and rearrangement of rooms.

The associations emphasize, however, they are not promoting a model program. They are promoting a set of principles on which an architect can build a manor or a cottage.

Also, they point out that none of the cutting ideas is new in itself; but bringing together of the ideas in one coordinated program is new.

Advantages—Taking as an example proposed house plans, the Productive Council cites these significant advantages:

(1) The 16-ft. width dimension is the best space that can be spanned by 10 joists unsupported except at the ends. Under some methods of construction this will permit using 16-ft. joists without cutting or fitting. It also allows use of roof truss that can be assembled on the floor, lifted by two men.

(2) Room lengths of 24 ft. or 28 ft. give convenient multiples of the 4-ft. module, provide joist and stud spacing of either 16 in. or 24 in.

(3) With all interior partitions non-load-bearing, it will be possible to apply finished floor and ceiling materials across the entire area before erection of interior partitions.

(4) In many places pre-cut and pre-assembled units can be used.

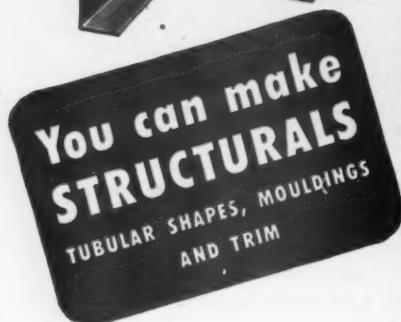
(5) Savings in plumbing and heating can be made because kitchen and bathroom are back-to-back. Or completely integrated kitchen-bathroom assemblies can be adopted (BW—Nov. 30 '46, p. 20).

Plugging the Plans—The associations plan to promote the program heavily to their own members, architects, engineers, and the public. One feature will be a \$1, 160-page book, ready next month. It will detail the "how-to" information on the method.

Plans for the suggested houses will be available at low cost through local lumber dealers, manufacturers, and trade associations. Builders will be encouraged to erect one of the homes for demonstration.

Promotional costs will be shared by the Producers' Council and the National Retail Lumber Dealers Assn. (In the over-all program, there are 42 participating trade associations.)

Savings—Manufacturers and distributors are expected to share in the anticipated savings of the industry-engineered



from the smallest up to $\frac{1}{2}$ " thick, from flat or coiled strips of metal up to 30" wide, and even wider, on a highly standardized Yoder Cold-Roll-Forming Machine. Any good mechanic can learn operation in a few weeks from a Yoder service engineer.

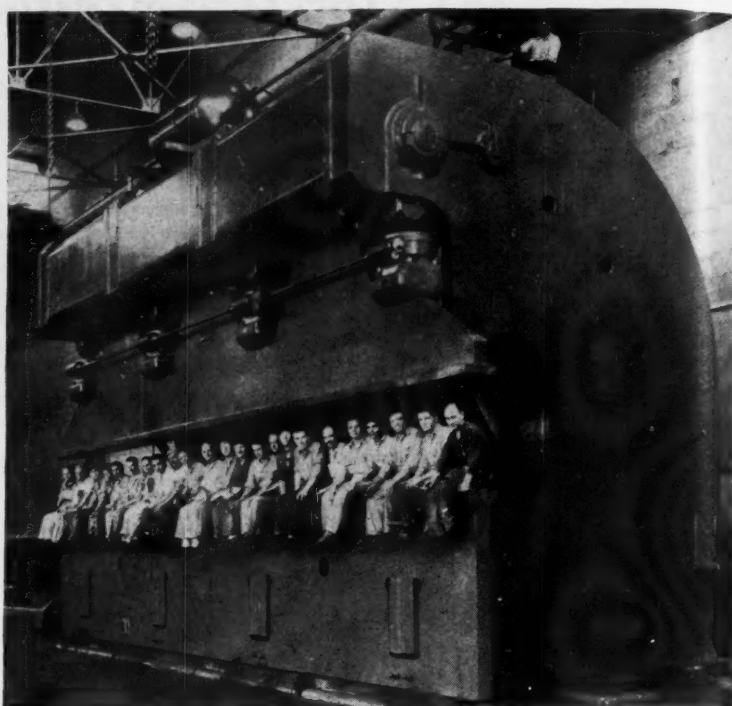
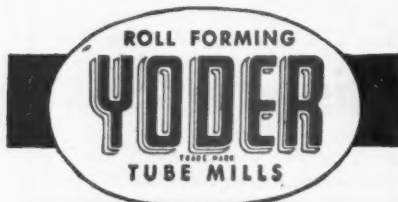
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BUT IT ONLY BITES METAL

With two dozen workmen perched on its lower jaw, a new 500,000-lb. press brake poses for its picture before being dismantled for shipment. It's going to Jones & Laughlin Steel Co. The maker, Warren City Mfg. Co. (Warren, Ohio), says the press is the world's largest, is shipping the unwieldy bulk piecemeal in special freight cars. The press is designed to deliver a 1,000-lb. stroke for bending $\frac{3}{8}$ -in. steel plate in lengths up to 36 ft. Push-button controlled, the big unit can deliver up to 15 strokes a minute. The flywheel alone weighs over 10,000 lb.

neered home" program, too. Standardization will lift demand for standard parts, aid mass production. It will also be possible to "package" materials.

• **Barriers Down**—No trouble with the engineered home program is expected from labor unions. The council has gone into this point thoroughly; it claims that the unions are behind the move to speed construction. So far as building codes are concerned, no friction is anticipated in that quarter because suggested plans meet FHA requirements.

GASIFICATION PROGRESS

The Chemical Plants Division of Blaw-Knox Co. will design and erect a coal gasification pilot plant for the Pittsburgh Consolidation Coal Co.

Thus Consolidation is about to get under way in its cooperative project with Standard Oil Development Co. (BW—Apr. 5 '47, p48), to attempt to discover whether a practical, commercial process can be found for making synthesis gas. Synthesis gas is the first step in the production of synthetic fuels from coal.

Present estimates are that the pilot plant will cost in excess of \$500,000. It will be in Library, Pa., a Pittsburgh suburb; construction will start late this year.

FROZEN DIES

It used to take Ford Motor Co. more than six weeks to make sample parts. Now it takes little more than a day. Behind the time cut lies an alloy of bismuth, tin, and lead, which Ford told the public about last week for the first time.

Biggest time-consumer in making sample parts is die-making. Shaping the usual hard metal is a long, costly job. But the Ford alloy is soft, can readily be molded at room temperature.

Ordinarily, an alloy of the kind Ford is using is so soft it melts at the temperature of hot water. Ford engineers got around this by first casting the die, then freezing it with liquid nitrogen at a temperature of -320°F .

The freezing hardens the die surface so that six to ten stampings can be made with the die before it requires refreezing in the cold bath.

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Underwood Limited

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NEW PRODUCTS



Refrigerated Bar

For men who prefer their drinks with a serving of distinction, Springer Industries Inc., 149 Broadway, New York 6, has designed the Penguin refrigerated console bar.

With top down, the bar measures 42x42x18 in. Refrigerated storage space is 3½ cu. ft.; ice-tray capacity is 42 cubes. Special features include: a liquor storage cabinet with automatic light; plywood service sections with mirrored backs; a hermetically sealed condensing unit that gets rid of excess moisture. The cabinet is available in modern or 18th century stylings. Finishes can be had in mahogany, walnut, or limed oak.

Availability: deliveries start in 6 weeks.

Small-Size Electric Stairs

An electric stairway designed specially for use in small- and medium-sized retail stores is announced by Westinghouse Electric Corp., Jersey City, N. J. The stairway is 27 in. wide. It is limited to a rise of 22.5 ft. The unit travels 90 ft. per min. at a 30-deg. rise, carries 4,000 persons an hour.

The stairway's driving motor is mounted vertically inside the top end of the truss; hence no outside special inclosure is required. The truss itself works without intermediate supports on stairways up to 20 ft.

Steps on the new model are of die-cast aluminum, with cleats spaced ½ in. apart; balustrade is aluminum.

Availability: April, 1948.

Negative Color Film

Color prints and photo-mechanical reproductions can be made more easily with a new negative color film announced by Eastman Kodak Co., Rochester 4, N. Y. The film is called Kodak Ektacolor. It is intended for professional use and is designed for processing in the photographer's studio.

Major advantage of the film is said to be its use of colored couplers. These

correct colors automatically, eliminate the need for making negative images or masks. Eastman claims the process also saves time by eliminating the color separation negatives required in making color prints. Using Ektacolor film and color filters, printing matrices can be made directly on Kodak Pan Matrix film.

Availability: early 1948.

Plastic-Box Maker

When transparent plastic packages are made by hand, high fabrication costs keep prices up. Result: such packages have been restricted to use by the luxury trade.

To reduce production costs and widen the field for plastic packaging, Trans-Bo-Matic, an automatic box maker, has been developed by American Tool Works Co., Cincinnati 2. Run by a single operator, the machine makes boxes at rates up to 1,000 an hour in sizes from 2½x2½x½ in. to 13x13x½ in. The machine takes plastic stock in sheets, handles between 50 lb. and 150 lb. of material per hour. About an hour is needed for adjustments when sizes are changed.

Availability: March, 1948.

Resistor-Fuse

International Resistance Co., 401 N. Broad St., Philadelphia 8, is making a wire-wound resistor which performs two functions: It acts as a fuse as well as a resistor.

The difference between the two functions is one of power level. At a low level, the device is an ordinary resistor; at a higher power level it is a fuse and will break the circuit when the wire burns out.

The resistor is custom-designed to individual circuit requirements. It is available at a power rating of 1 watt, from 15 to 150 ohms.

Availability: four weeks.

Vibration Mounts

Rubber and a conical steel spring are combined in the new Type RS rubber-spring mounting developed by Korfund Co., 48-44 Thirty-second Place, Long Island City 1, N. Y.

Load capacity of the mounts ranges from 25 lb. to 125 lb. per unit. The conical spring is intended to provide horizontal stability. In some cases it eliminates the need for snubbers and flexible connections on compressors, generators, pumps, and motors which use the new mounts for vibration isolation.

According to the manufacturers, the combined use of rubber and steel not only increases load capacity, but also provides efficient operation on wide frequencies of vibration.

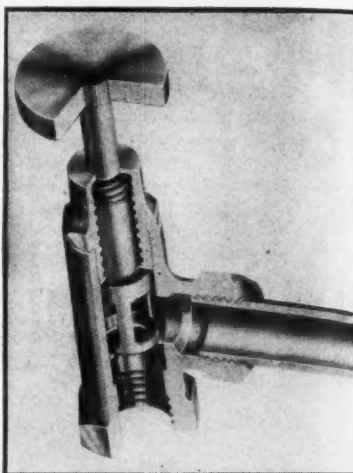
Availability: deliveries in October.

Dry-Salt Cellars

Crystalite salt and pepper shakers are said to keep their contents flowing regardless of weather or humidity.

The shakers have a rubber valve which seals the salt chamber against moisture. Operated by two levers, the valve is opened for dispensing by pressure of the thumb and forefinger. When the levers are released, the valve closes automatically. The shakers are made in two models: the Dual a one-piece combination salt and pepper dispenser; and the Metalist, a two-piece set. The Metalist shakers are aluminum, are designed with a plastic base that shows their contents by reflection. Knox Products, Inc., 612 N. Clark St., Chicago 26, is the manufacturer.

Availability: three weeks.



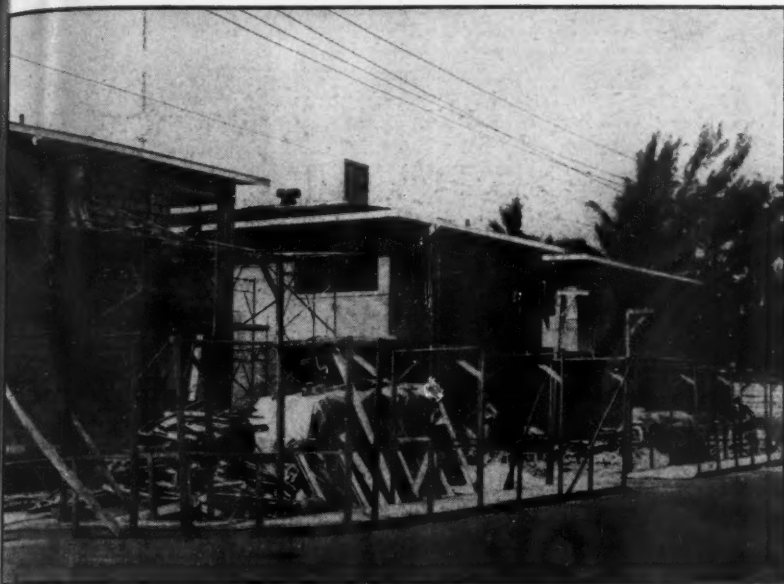
Washerless Valve

Valve seat, washer, and other wearing parts are eliminated in a seatless plumbing valve made by Power-Pak Products, Inc., 43 Pearl St., Buffalo 2, N. Y. The valve is said to be freeze-proof. Further claims: It cannot leak, since there is no washer or valve seat to become scored or distorted; quiet operation is assured by allowing line pressure to build up gradually.

The valve uses a principle long applied on high-pressure hydraulic systems. Two synthetic rubber collars engage the valve stem. The upper collar prevents leakage into the activating thread, replaces the customary gland packing. The lower collar is the seal for closing the valve; it replaces the conventional valve seat.

Availability: immediate.

CITIES



FLORIDA BOOM: This time, homes instead of land speculation in Miami

Miami Building Surges

Activity recalls '25 boom. As structures sprout, improved land prices climb. But Miamians say it's not boom-and-bust this time; they point to number of modest homes as healthy sign.

When the fabulous Florida real estate boom neared its peak in 1925, 6,000 profit-seekers were streaming into Miami every day. The exodus was almost as great when the boom collapsed.

Today, the Miami metropolitan area may be looking another boom in the face.

• **Sounder Basis**—The current activity differs somewhat from the dazzling era of the '20's, however. There's not so much buying and selling hunks of raw real estate—much of it under water. The 1947 bulge is more of a building boom, although land speculation is not entirely missing from the picture.

Miami boosters say that the city is girding itself for \$750-million of building in the next five years. Building permits in the greater Miami area, which totaled \$42-million in 1946, were just short of \$67-million for the first six months of 1947. The surge in construction began last year when the federal restrictions were eased. The pace was stepped up as curbs came off and building supplies became more plentiful this year.

• **Emphasis on Homes**—Accent is on housing. There are 5,500 units scheduled for construction in metropolitan

Miami this year. Florida Power & Light Co. estimates that 46,500 units will be built in Dade County by 1951.

There is a special emphasis now on the erection of "modestly priced" homes. Houses are being built for white-collar workers and others in Miami's permanent population. Some are for retired persons and modest-income winter residents.

• **Cheaper Than Renting**—The reason is obvious: Rental costs have shot up so high that it is cheaper to buy or build. And, since home demand has far outdistanced the supply, building is more often simpler and less expensive than buying.

Construction of moderately priced houses is considered to be a healthy sign. Generally it is less speculative, less likely to create a boom-bust pattern than other types of building. In contrast, there are few modest homes in the 1925 ghost areas. The relics of that era are in sidewalked, street-lighted, weed-covered, semiswamps that once sold at stratosphere prices.

• **Utilities, Too**—The next most important construction category is public utilities. The power company has outlined an \$85-million program providing for expansion of generating and dis-

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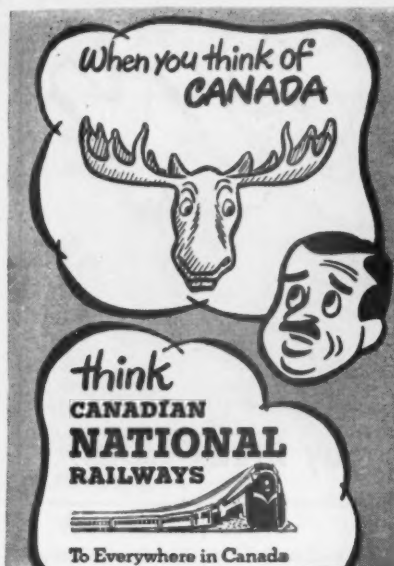
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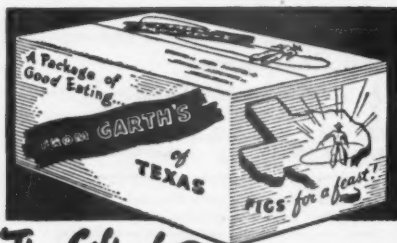
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TYRRELL & GARTH, INC.
HOUSTON 6, TEXAS

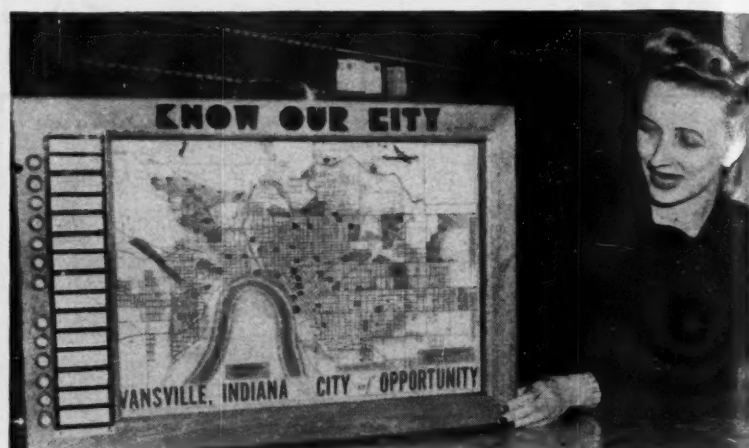
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Houston 6, Texas.

Please make shipment 1947

Please send _____ orders of **FEAST O' FIGS**, at \$3.25 per gift, and _____ orders of **TROPICAL TREAT**, at \$2.75 per gift, to each name on attached list.

Check or money order for \$_____ attached covers all costs.

NAME _____
STREET _____ CITY _____



EVANSVILLE'S GUIDING LIGHTS

With new plants bringing in new personnel, a lot of strangers are getting lost in Evansville, Ind. To relieve the situation, the local Chamber of Commerce is planting electrical maps in public places. Newcomers just press a button and the desired area lights up showing plant locations, theaters, and civic points of interest.

tributing facilities over the whole state. A good part of it is in and around Miami.

The Southern Bell Telephone & Telegraph Co. is adding two extra floors to the present five-story Miami telephone building and a complete seven-story building is being put up alongside.

• **Apartment, Hotels**—Frank O'Neil of the Miami Builders Exchange says there are plans, contracts, and work under way on 271 apartment buildings comprising 5,263 units in greater Miami. Also in various stages of projection are 65 hotels with 9,322 guest rooms.

The city of Miami itself has some \$35-million of improvements on the books. These are designed to give the city a new sanitary system, adequate water works, miles of new sidewalks, and urgently needed public buildings. Dade County has a building program which may ultimately cost around \$16-million, according to county officials.

• **Prices Climb**—The building boom is being reflected in higher prices and vast turnover of improved real estate. One local realtor reports that a piece of property on Flagler St. directly across from the skyscraper court house sold recently for \$4,000 per front foot and resold almost immediately for \$5,000 a front foot. The Biscayne building, two blocks east on Flagler, was bought for \$500,000, resold for \$1-million; present owners refused \$1,500,000 for it recently.

A lot of valuable downtown Miami property has recently been purchased by Latin Americans. There are four to five thousand Latin Americans living in Miami. Puerto Ricans and Cubans have invested huge sums in Miami property and have acquired 90,000 acres of cat-

tle and sugar land in the nearby Everglades.

• **Commercial Buildings**—An array of big jobs are included in Miami's new commercial construction program. Plans have been drawn for a year by a local architect for a 20-story Pan American structure on Biscayne Boulevard. He says the land is bought and finances are available for early building. Another architect tells of plans for an 18-story Miami office building to cost an estimated \$3-million and a smaller building estimated to cost \$750,000.

Those most active in the real estate market and in construction are Miamians and others familiar with South Florida. Many home seekers are local residents. Many ex-servicemen who spent some time in training at Miami are returning.

• **Labor Sought**—On the strip of land east of Biscayne Bay—Miami Beach—the boom is even more spectacular. The greatest amount of building of any June month in the 32-year history of Miami Beach occurred in June, 1947. Architect's offices are loaded with business. Contractors are striving to line up labor and materials.

At Ft. Lauderdale, a small residential community north of Miami, building permits were \$1,500,000 in May; the three preceding months each averaged over \$1-million.

• **It's Infectious**—Coral Gables, Hialeah, North Miami, and Surfside are other communities in the Miami area where building permits for the first six months of 1947 exceeded \$1-million.

The greater Miami building splurge is duplicated to some extent in the whole state of Florida. A high rate of construction is reported to be under

way or in the advanced planning stage in northeast Florida and on the west coast. Jacksonville, Daytona Beach, Tampa, Orlando, and St. Petersburg are sharing in the new era of good times.

• **History**—Miami was only a tiny Indian trading post with a population of 200 until 1896. In that year, oil millionaire Henry M. Flagler extended the Florida East Coast R.R. to Miami and built the Royal Palm Hotel there.

Miami earned its title of the "Magic City" by developing rapidly into a tropical metropolis after 1916. Its population was estimated at more than 130,000 when the peak of the real estate boom was reached in 1925. In 1930, the official count was 110,637. The 1940 census came to 172,172 persons. And there has been considerable growth since that time.

• **Work and Play**—Miami has long been known as a tropical playground. The winter seasons have doubled and tripled the city's population year after year. However, Miami is quick to say that Miami is not strictly a tourist city. The Chamber of Commerce even refers to it as an industrially minded metropolis. Miami has 550 manufacturing plants with a payroll of more than \$110-million yearly. Novelties, apparel, cigars, and processed ramie are some of the many Miami-made items.

Local newspapers find it difficult to keep the word "boom" out of stories these days. But efforts are made constantly to refer to growing population and increasing business as normal growth. Old-timers, however, still remember the 1925 collapse. So they are keeping their fingers crossed this time.

City Buys Suburb

Spartanburg, S. C., group takes over army camp, turns it into area for homes, industry. WAA likes speedy disposal.

In Spartanburg, S. C., businessmen believe they have a solution to the problem: What can you do with a surplus army post? They are backing a nonprofit community project that has bought nearby Camp Croft, is now turning it into a model residential and industrial suburb.

• **Leftover**—The camp was a war leftover—a mass of drab barracks and other buildings. In its day, thousands of soldiers passed through its gates. When the army moved out, the War Assets Administration took it over for disposal—like its dozens of counterparts.

Meanwhile, an idea had begun to grow in the minds of Spartanburg business and civic leaders. Why couldn't Spartanburg do something with the



**NATIONAL CASH REGISTER
CUTS PRODUCTION TIME**

On This Part

Molding time was sharply reduced when National Cash Register substituted these 4-oz. H-P-M injection molding machines, with vertical clamps for compression presses, on this 3 1/2-oz. part.

... With H-P-M All-Hydraulic Injection Molding Machines

When thermo-setting plastics for compression molding became in "short" supply, National Cash Register switched to thermo-plastics and H-P-M injection molding machines. It was a blessing in disguise—for production time on one item alone—fronts for cash register drawers—dropped 75%.

TAKE A TIP FROM NATIONAL. Look over *your* list of parts now molded on compression presses. Then investigate the possibilities in H-P-M injection molding machines—for injection molding materials are plentiful... It's an idea worth investigating!

Fast, money-saving H-P-M injection molding machines are built in five standard sizes—4, 9, 12, 16 and 32-ounce capacities. Regardless of your plastics problem, an H-P-M engineer can be of real service to you. Call in your nearest H-P-M representative or write direct.



Get quick, factual information on H-P-M 4-oz. machines by writing today for Bulletin 4701.

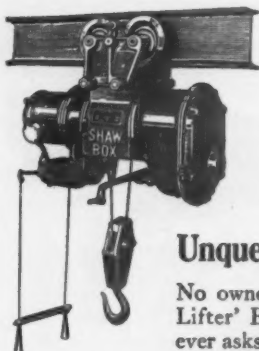
THE HYDRAULIC PRESS MFG. CO. 1000 Marion Road, Mount Gilead, Ohio, U. S. A.
Branch Offices in New York, Philadelphia, Cincinnati, Cleveland, Columbus, O., Detroit, Pittsburgh, Chicago.
Representatives in other principal cities. Export Dept: 500 Fifth Avenue, New York, N. Y. Cable—"Hydraulic".



*All-Hydraulic
Self-Contained*

Plastics Molding Presses

REVOLUTIONIZING PRODUCTION WITH HYDRAULICS SINCE 1877



Unquestionable!

No owner of a 'Load Lifter' Electric Hoist ever asks if it will take the daily punishment of continuous near-capacity loads. He *knows* it will. The rugged construction would be enough, but the real secrets of its endurance are many special features not found in their entirety in any other hoist... One-point oiling; two-gear reduction drive; fool-proof upper stop... all typical of the built-in mechanical efficiencies of the 'Load Lifter.'

Send for Catalog No. 215



'LOAD LIFTER' Hoists

MANNING, MAXWELL & MOORE, INC.
MUSKEGON, MICHIGAN

Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

COMMERCIAL REFRIGERATION

IS BETTER TODAY

BECAUSE CONDENSING

UNITS ARE BETTER

A QUALITY PRODUCT OF THE "Lehigh Team"

Lehigh BLU-COLD

COMMERCIAL REFRIGERATION

1/3 to 5 H.P. AIR and WATER COOLED MODELS

Lehigh Mfg. Co.

PLANT LANCASTER PENNA



MILITARY BARRACKS go civilian as Spartanburg, S. C., makes camp a model suburb

camp in its complete form? The community needed more housing; some buildings might be put to industrial use.

As people talked, the idea grew. Last March it bore fruit. The Spartanburg Community Foundation bought the camp from WAA for a little over \$1-million.

• **Adaptable to Industry**—What the foundation actually got in its purchase was the improved section of 1,118 acres, 725 buildings. It had an area easily adaptable to industry. There were 44 major buildings—warehouses, laundries, bakeries, cold storage plants, shops—and plenty of land for more. Power lines, water mains, rail spurs were all in. The aim was to sell these buildings and sites for as many diversified industries as possible. The foundation wanted to skirt the idea of one large industry swallowing up the entire development.

The Spartanburg office of Lockwood Greene Engineers, Inc., was called in. Its draftsmen were soon busy drawing up plans for the conversion. The foundation will furnish plans with the sale of any site.

• **Housing Projects**—One of the chief attractions the foundation played up is the opportunity the camp offers for housing workers and their families. Hence, one of the Lockwood Greene blueprints was devoted to a model housing project.

Under the plan, up to 50% of the material for these houses would come from salvaged buildings. Already under the crowbar and ax is the old post hospital. A group of war veterans is planning on houses in the area to sell for \$2,800 to \$4,300. Other houses are expected to be built for workers in the projected industries.

• **Site Sale**—Biggest completed deal so far in the industrial area was Spartan Mill Corp.'s purchase of the motor pool

and half a dozen larger buildings. A widely diversified cotton textile firm, Spartan has not said what it intends to do with them. But the foundation is sure they will be put to worthwhile use.

Negotiations for other buildings and sites are still under way. But the foundation feels that there is no great rush to sell everything at once. It is a community trust, hence under no compulsion to make a quick-turnover profit. This is a long-range project—one that it hopes will be a permanent asset to the community.

• **Background**—The foundation was founded in 1943. Some of Spartanburg's most influential industrial leaders serve on its board. Among them: David W. Anderson—who is chairman of the camp project—retired president of Pacolet (S. C.) Mills; W. Priestly Conyers, Jr., chief of the Spartanburg end of Taylor-Colquitt Co., timber creosoters; James A. Chapman, president of Inman (S. C.) Cotton Mills; McFarlane L. Cates, secretary-treasurer, Arkwright Mills.

With no fanfare campaign to back it, the foundation built up a \$500,000 trust fund. Under its chairman, Dr. Henry N. Snyder, retired president of Wofford College, it quietly puts its money into scholarship funds, welfare projects.

• **A Model?**—One of the most interested backers in the Camp Croft project is Gen. Robert M. Littlejohn, chief of WAA. Littlejohn is a native South Carolinian, and a resident of Spartanburg. But his interest is more professional. As he knows, the average time spent in finishing up the disposal of a big army camp on a piecemeal basis is six months. In the Camp Croft deal, only six weeks were spent in closing out all the major items. So Gen. Littlejohn wants to make the Croft sale a model for disposition of other surplus camps.

**TOPPING
is a GOOD
STROKE**

**...in a
POWER PLANT**



Electric demands were growing faster than heating and process steam loads at the North Plant power station of the Wyandotte Chemicals Corporation. How to increase power output without producing an excess of steam for other plant needs posed a problem.

Superposing a new high-pressure boiler and prime mover over existing equipment (power engineers call this "topping") offered the most practical solution—enabled the plant to take full advantage of its original investment in low-pressure prime movers along with the attractive fuel economy of the new B&W boiler. ● This modernization project was a profitable stroke: Electric output was trebled; ratio of by-product power to steam load was substantially increased with the least additional investment; new capital expenditures for power plant additions were avoided . . . new boiler generates four times more steam than old units yet occupies no more floor space. ● Perhaps modernization, with the help of B&W up-to-date ideas and equipment, would be a good stroke in your plant.

modernization makes sense...DOLLARS, too



Water-Tube Boilers, for Stationary Power Plants, for Marine Service . . .
Water-Cooled Furnaces . . . Superheaters . . . Economizers . . . Air Heaters . . .
Pulverized-Coal Equipment . . . Chain-Grate Stokers . . . Oil, Gas and Multifuel
Burners . . . Seamless and Welded Tubes and Pipe for All Pressure and
Mechanical Applications . . . Refractories . . . Process Equipment.



N-33

AUTOMATIC insect-control ...NOW!



Here is an insect-control device that enables you to get rid of insects effectively, cheaply . . . by merely flicking a switch. The Lethalaire Solenoid System substitutes automatic, scientific control for old-fashioned guesswork and hand labor. And it uses as its insecticide Virginia's deadly new aerosol, Lethalaire.

How does it work? Simply snap on the wall switch. The solenoids release a circulating mist which spells death to insects. The valves remain open until the scientifically correct amount of Lethalaire has been dispersed, then they shut off automatically. Once installed, the Solenoid System becomes as much a part of your place as the heating system or the electric wiring. It's inexpensive to operate. Virginia engineers will design your installation free of charge.

Lethalaire comes in three formulas . . . a DDT-pyrethrin formula for general use, a pyrethrin formula without DDT for restaurants, food processors and packers, and a 5% DDT formula prepared specifically for greenhouse use.

Lethalaire is also available in a convenient and portable 5-pound container-applicator. Simply operated by a turn of the handwheel. Reaches inaccessible spots. Scientifically designed nozzle meters the flow.

Ask your supplier about Lethalaire, or mail the coupon today for further interesting information.

**VIRGINIA SMELTING COMPANY
WEST NORFOLK, VIRGINIA**

Please send me more information about:

- ☐ The 5-lb. Portable Container-Applicator
☐ The Lethalaire Solenoid System

Name

Street

City

VIRGINIA
Chemicals

WEST NORFOLK • NEW YORK • BOSTON • DETROIT

MARKETING



VIDEO ATTRACTS night spot crowds, but telecasters must please homebodies too

Television's Audience Problem

Bar patrons, home viewers don't go for same programs. And need to watch as well as listen limits good hours to about four a day. Another industry worry: the high cost of programs.

As the teams in both major baseball leagues neared the end of the pennant races, patronage in New York City bars and taverns went up like a high fly ball. The patrons weren't just thirsty—they wanted to watch the play-by-play coverage of the games on the bars' television sets.

• **Difficulties**—The mounting interest served to spotlight one of the difficulties now confronting televisors: the matter of programming. But there are other problems, too. One is the limited availability of desirable time; another is the expense of broadcasting video programs.

The programming difficulties arise from the "split personality" of the television audience. In New York City, for example, approximately 3,000 of the area's 43,000 sets are in bars and grills. The rest are in the homes of families with comfortable incomes. The vastly greater number of watchers per set in the saloon league, however, make the two audience groups about the same size. Satisfying them both simultaneously presents a big problem for televisors.

• **Preferences**—The bar-and-grill set prefers sporting and news events. While these programs also have a large following in homes, the studio programs designed for home listening do not appeal

to the watchers in saloons. And there aren't enough sporting and news events to fill television's broadcasting hours.

The fact that desirable time is limited presents another difficulty which televisors must surmount. Unlike radio, television must be seen to be appreciated. And the housewife who is accustomed to listen to soap operas while she washes, irons, and does the housework, cannot watch a visual program while she does her chores.

• **Top Hours**—This means that only a limited number of hours are going to be acceptable to the nation's advertisers. The most desirable ones will be during the evening, from about 7 p.m. until 11 p.m.

The problem of expense presents difficulties which may be more easily overcome. Once the audience is established, advertisers may be willing to pay for the added impact which a moving, visual presentation gives. The expense of putting on a live video show, however, is still many times greater than the cost of a radio program which requires no costuming, sets, or memorization of lines. And to this must be added the equipment costs and the expense of relaying the program to other cities.

• **Cost**—At present the rates for television time, exclusive of talent, are not

high. Broadcast time for a one-hour live show, including five hours of rehearsal time, costs \$850 on NBC's New York station. DuMont uses a sliding scale ranging from \$500 for a one-hour afternoon show to \$800 for the hours between 7 p.m. and 11 p.m.; rehearsal time is extra at \$75 an hour. CBS figures the average cost of operating its television facilities, charges the sponsor half this amount, pays the other half itself; at present sponsors pay \$150 an hour.

Rates will undoubtedly rise as the number of listeners increases. But currently the television audience is very small. Although the industry publishes no authoritative statistics, most telecasters collect their own. Following are NBC's estimates for the number of sets in use on July 15, 1947; the company does not claim any finality for the figures, regards them merely as an informed guess:

New York City	43,000
Philadelphia	6,000
Chicago	3,000
Los Angeles	3,000
Detroit	2,500
Washington, D. C.	1,400
Schenectady	600
St. Louis	600

• **Reasons**—With an approximate total of only 60,000 sets in the nation, why does any advertiser use this limited-circulation medium? There are several reasons:

• Many advertisers expect that television will blossom, possibly as early as 1948, into one of the most potent advertising media available. For this reason they are anxious to obtain valuable time franchises. Tomorrow's program, they reason, may have as large an audience as today's radio show. So they want to assure themselves of priority on the peak viewer hours.

• Advertisers are anxious to gain experience in telecasting a program, developing a commercial that will sell. They want to make their mistakes now, while the audience is still small.

• Many tie-in promotional possibilities are available. There is still enough magic in the word "television" to get free linage in newspapers and magazines.

• The sales effect of video programs is one of the lesser reasons why advertisers sponsor television shows today. It is currently small, because of the limited audience. Advertisers feel, however, that this small audience is cultivated more intensively and with more impressive results than through other media. And telecasters think that this will be the most important reason for sponsorship of tomorrow's programs.

• **Growth**—Estimates of set production indicate that the video audience will grow rapidly. Optimistic manufacturers

AT THE
MACHINE TOOL SHOW

Eleven NEW NORTON MACHINES 8 GRINDERS 3 LAPPERS

RECOGNIZED leader in the abrasive industry —
Norton scores again with eleven new grinders
and lappers at the Machine Tool Show:

Three Cylindrical Grinders

6" plain, 6" semiautomatic and
10" semiautomatic

CAM-O-MATIC® Cam Grinder

8 x 24" Surface Grinder

10 x 20" Universal Grinder

No. 20 Cutter & Tool Grinder

No. 2 BURA-WAY® Tool Grinder

No. 16FC Lapper

SEAL-O-LAP® Lapper

Simplex Surface Finisher

See these latest developments in grinding and
lapping machines in action at the Dodge-Chicago
plant and learn how they can cut costs for you —
on the production line and in the tool room.

NORTON COMPANY, WORCESTER 6, MASS.

(Behr-Manning, Troy, N. Y. is a Norton Division)

®Trade-mark reg. U. S. Pat. Off.



NORTON

ABRASIVES — GRINDING WHEELS — GRINDING AND LAPPING MACHINES
REFRACTORIES — POROUS MEDIUMS — NON-SLIP FLOORS — NORBIDE PRODUCTS
LABELING MACHINES — BEHR-MANNING DIVISION COATED ABRASIVES AND SHARPENING STONES

HAMMERMILL

is a BY dv



Advertiser is a BW advertiser

Why is this?

THE HAMMERMILL PAPER COMPANY has been a consistent advertiser in the pages of Business Week for twelve years. They came into BW when their own readership studies—conducted among executives of customer and prospect companies—demonstrated its special values as an advertising medium. They have stayed in BW because repetition of these studies has confirmed their estimate of its influence on Management-men. Other long-time advertisers in the "Paper Goods" classification include the Neenah Paper Co., Strathmore Paper Co., American Writing Paper Corp., W. C. Hamilton & Sons, George La Monte & Son, Nekoosa-Edwards Paper Co., Parsons Paper Co., Byron Weston Co., U. S. Envelope Co.

... and this

In 1946, Business Week carried nearly 50% more advertising in the above classification than the other three general business publications COMBINED ... and 50% more than any other general news weekly!

this is why

Readership studies and circulation analyses show that Business Week has a concentrated audience of Management-men. The advertiser reaches more Management-men per advertising dollar in BW than in any other general business magazine or news weekly.

**BUSINESS
WEEK**

yes WHEREVER YOU FIND IT,
YOU FIND A MANAGEMENT-MAN..
WELL INFORMED

*Based on Publishers' Information Bureau analysis of 1946 advertising.



You can't blame the boys for being surprised. For most plants these days know the value of good fencing protection. Maybe that's one reason why Cyclone Chain Link Fence is the most widely used property protection fence in the world.

You'll find that Cyclone Fence stands up in all weather... and stays firm through many years.

If you'd like to know why, just send for our free book. Study for yourself the special features of manufacture, construction and design

which make Cyclone outstanding. See which of Cyclone's 14 types best fit the particular requirements of your own plant.

Or, if you prefer, have one of our expert engineers assist you in your planning and estimating. There's no charge... no obligation. *No job is too large or too small.*

CYCLONE FENCE DIVISION
(AMERICAN STEEL & WIRE COMPANY)
Waukegan, Ill. • Branches in Principal Cities
United States Steel Export Company, New York

U.S.S. CYCLONE FENCE



Clip this coupon—and send it to:
Cyclone Fence, Waukegan, Ill., DEPT. 497
We'll send you our free, 32-page book on fence.
It's full of facts, specifications, illustrations.
Shows 14 types of fence. Before you choose any
fence for your property, get the facts about Cyclone.

Name.....
Address.....
City..... State.....
Interested in fencing: ☐ Industrial; ☐ School; ☐ Playground;
☐ Residence. Approximately.....feet.



UNITED STATES STEEL

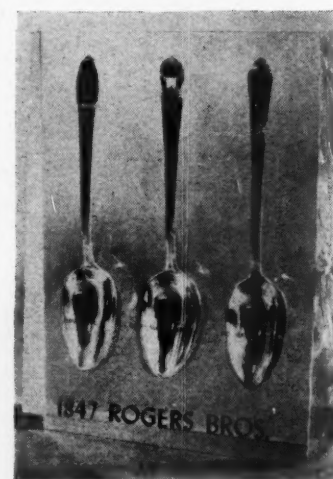
place the number of sets in use by the end of 1947 at 250,000. (But many believe this figure to be bloated by wishful thinking.) The same soothsayers place set production for 1948 at 1,250,000.

The number of telecasters is also expected to increase in the near future. Although there are only 12 stations operating at present, 55 others have been granted construction permits. An additional 10 applications are pending. Television sets are already being offered for sale in cities which currently have no video outlet.

• **Surveys**—To prove the pulling-power of their audio-visual medium, televisioners point to surveys they have made. While the results are not unassailable, they present important indications of video's influence. A telephone survey of 500 set owners made by C. E. Hooper, Inc., for CBS during a recent baseball telecast provided the following results:

- More than half the home sets were tuned to the game;
- The average audience watching each set was slightly more than six persons;
- Of those watching the telecast, three out of four could identify the sponsor of the program.

DuMont has made similar surveys. Its best proof of the impact of a visual presentation, however, centers around a mistake made on a televised program of guessing-games. In announcing the address to which answers should be sent, the announcer said "New York" but



BRIGHTLY IN SIGHT

Rogers Bros. has found an attention-getting way to beat the old problem of keeping displayed silverware bright and shiny. To protect against tarnishing and fingerprints, the firm imbeds its samples in transparent blocks of light-weight Plexiglas.

held up a card which read "New York 17." This actually was the wrong address, as DuMont is in postal zone 22. DuMont points out that, although the card was held up only once, and for only a few seconds, 32% of the 1,119 replies were addressed to "New York 17."

• **Visual Advantage**—Televisors plug three advantages of television intensively: motion, spontaneity, and immediacy. Instead of merely talking about a product, video can show it in use; the "black-and-white-striped package on your grocer's shelf" can actually be seen for product identification. And a visual impression, they add, lasts longer than an auditory one.

Even the starry-eyed telecasters admit that their industry is still in its infancy. But they expect it to mature rapidly. Already minuscule networks are linking cities on the East Coast. American Telephone & Telegraph Co.'s coaxial cable now connects New York and Washington, D. C., so that either city may see programs originating in the other. Systems of microwave transmission by a chain of relay towers are in use between New York and Philadelphia, and between New York and Schenectady.

• **Expensive**—One drawback to an unlimited expansion of the video audience is the cost of a television receiver. Prices now start at about \$250 (plus a \$45 installation charge) for table models and rise to more than \$4,000 for fancy console sets. Few retailers, however, report any difficulty in selling all they can get.

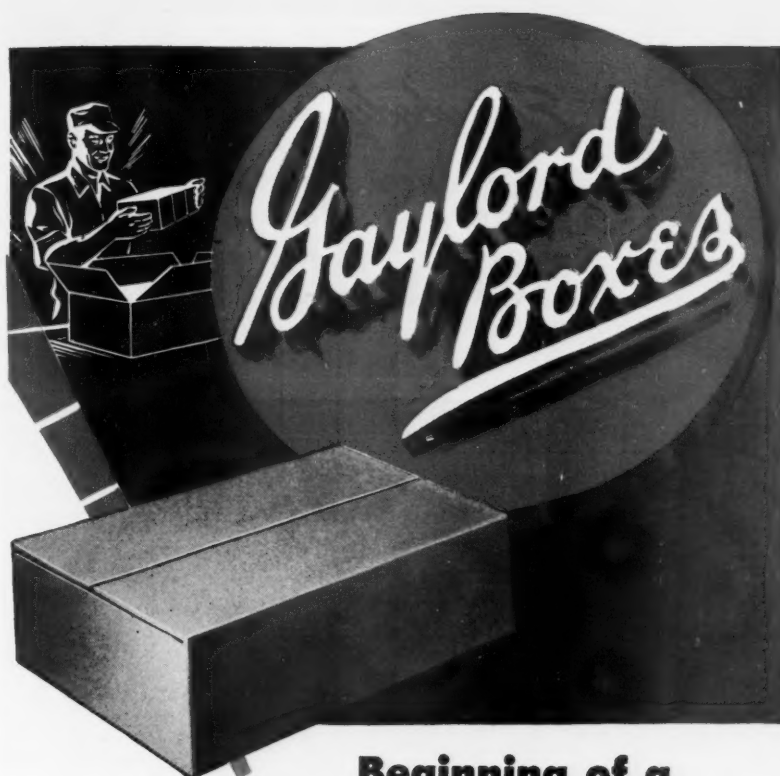
Despite all the difficulties in their path, televisors are confident that their baby will soon be selling toothpaste, automobiles, and vitamin pills. They can hardly wait for the day.

FLASHLIGHT BATTERY BOOM

During and immediately after the war, good flashlights and batteries were all but impossible to get. Not only were materials short, but manufacturers were almost exclusively engaged in war work. One of these was National Carbon Co., New York City, a leading flashlight producer who helped develop and manufacture the Navy's V-T proximity fuse.

Only now is National Carbon coming out of the squeeze. In October, it will remove allocations on flashlight cases—which in turn is expected to create a wider market for replacement batteries. With dealer contacts made, and all kinds of batteries restocked, the company is going into a heavy advertising and selling campaign.

Already National Carbon retail sales of flashlights and batteries are ahead of prewar levels. And use in several new fields makes the battery's future look



Beginning of a Safe Trip for Your Product

From the end of your production line or packaging machines to the retailers' shelves is likely to be a long trip.

But no matter how you ship—by rail, truck, or air—it can be a safe trip.

For, due to Gaylord correct functional design, better materials, and precision manufacturing, you can be sure that your product will reach the consumer with all of the quality and sales appeal you have built into it.

Packages by Gaylord assure greater protection—always.

Corrugated and Solid Fibre Boxes

Folding Cartons

GAYLORD CONTAINER CORPORATION
General Offices: SAINT LOUIS

Kraft Grocery Bags and Sacks

Kraft Paper and Specialties

New York • Chicago • San Francisco
Atlanta • New Orleans • Jersey City
Seattle • Indianapolis • Houston • Los Angeles • Oakland • Minneapolis • Detroit
Jacksonville • Columbus • Fort Worth
Tampa • Cincinnati • Dallas • Des Moines
Oklahoma City • Greenville • Portland
St. Louis • San Antonio • Memphis
Kansas City • Bogalusa • Milwaukee
Chattanooga • Weslaco • New Haven
Appleton • Hickory • Greensboro • Sumter

Everybody agrees
**COSTS MUST
 COME DOWN**

ONE important place to start reducing costs is with the machine where goods are made.

Speedier production is very definitely a function of New Departure ball bearings.

Operating with less friction, less wear than other types, the ball bearing is a "natural" for the higher speeds, greater rigidity and improved quality of product demanded by today's exacting production standards.

Thus, an investment in machines of modern ball bearing design is an investment in faster production—*lower costs*.

New Departure's technical literature is most helpful. Tell us your needs.



nothing rolls like a ball
**NEW DEPARTURE
 BALL BEARINGS**

3485-11

NEW DEPARTURE • Division of GENERAL MOTORS • BRISTOL, CONN. • Branches in DETROIT • CHICAGO • and Other Principal Cities

even more promising. Among the new markets National Carbon is developing:

- Use in hearing aids of the powerful small batteries it developed during the war. The company distributes them to 2,500 hearing aid dealers in the U. S.

- Pocket and portable radios, whose new popularity has increased demand for small batteries tremendously.

- The use by farmers of old-fashioned dry-cell batteries to charge electric fences—a trend that has begun to spread rapidly.

Co-op to Pay Taxes So It Can Expand

Few people would expect a cooperative to throw over one of its most attractive advantages—federal tax exemption—of its own accord. Yet at a recent meeting called by the American Institute of Cooperation in Fort Collins, Colo., that is exactly what happened.

- **Bombshell**—The big bombshell was thrown by Howard A. Cowden, president of Consumers Cooperative Assn. of Kansas City. C.C.A. sells supplies and consumer goods, with emphasis on oil and gasoline, to its farm patrons. As of Sept. 1, Cowden announced,



VITAMIN VENDOR

The vitamin is being groomed to compete with the juke box. Designed to fit with the napkin holder and juke box controls on lunch counters, a compact vendor of vitamins (above) is ready for test in six cities. It holds 200 capsules in a cellophane strip—like bullets in a machine gun. For a nickel the customers gets one shot—a One-A-Day capsule made by Miles Laboratory, Elkhart, Ind.

The machine is the product of Bray Corp., Pasadena, which is reported to have committed its entire output to Miles.

MAKE PRICE INFORMATION SPEED UP SALES

Build customer good will and increase sales by keeping your salesmen posted with accurate, up-to-the-minute price information.

Protect yourself from losses on sudden price changes.

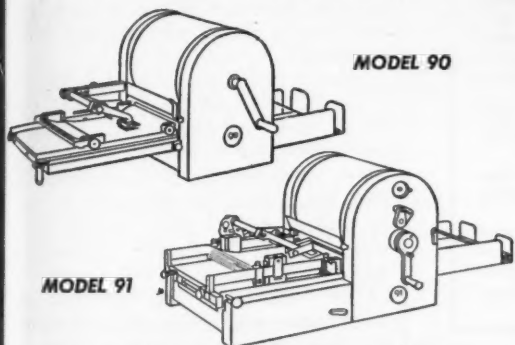
You can do it, easily and economically, with the help of the Mimeograph brand duplicator.

In the privacy of your own office, this versatile machine can turn out price change notices that may mean the difference between profit and loss on a sale.

New items and improved products added to your list or catalog can be priced and the information sent to your salesmen on just a few hours' notice.

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Find out more about the savings and earnings Mimeograph duplication offers your business. Call the Mimeograph distributor in your community—or write us direct.



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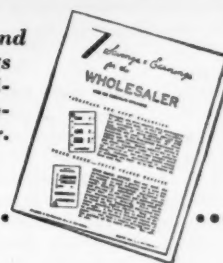
The Mimeograph brand duplicator

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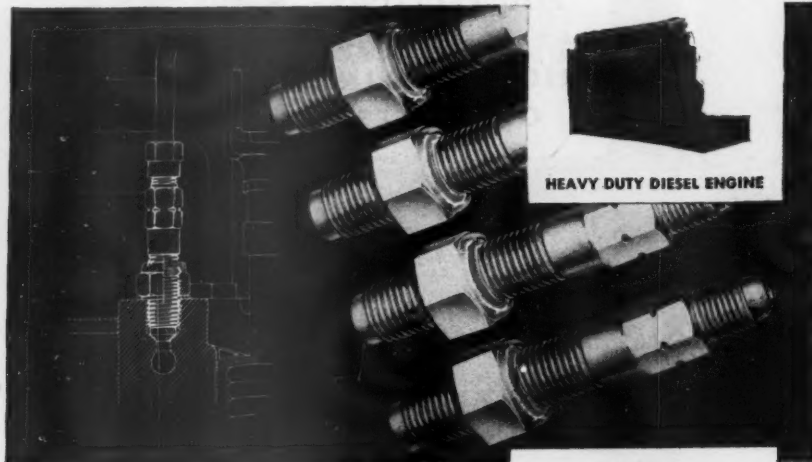
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*Prevents
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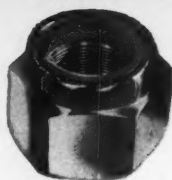


HEAVY DUTY DIESEL ENGINE

The Red Elastic Collar seals the threads tight against LIQUID SEEPAGE

Three important benefits result from the use of ESNA Elastic Stop Nuts on Diesel engine fuel line studs. *First*, operational safety. The Red Elastic Collar is self-sealing against fuel oil operating pressures up to 60 psi. *Second*, design simplification. The Red Elastic Collar is self-locking anywhere on the stud. It permits the use of straight threads—instead of individually gauged tapered threads—for the oil supply block connection. *Third*, faster assembly. Straight threads permit the accurate positioning of the studs between the block and fuel line—before the finished surface of the Elastic Stop Nut is fully seated and self-locked and self-sealed against the copper washer. The total result? Threefold economy!

Multiple protection—against Liquid Seepage, Vibration, Corrosion, Thread Failure and Costly Maintenance—has made Elastic Stop Nuts the standard fastener on many products. Standardization achieves the double economy of inventory simplification and reduced procurement costs. For further information address: Elastic Stop Nut Corporation of America, Union, New Jersey. Sales Engineers and Distributors are located in principal cities.



LOOK FOR THE RED COLLAR THE SYMBOL OF SECURITY

It is threadless and permanently elastic. Every bolt—regardless of commercial tolerances—impresses (does not cut) its full thread contact in the Red Elastic Collar. This threading action produces a compressive, radial-reactive pressure against both the top and bottom sides of the bolt threads... insures a permanently tight, full contact between the bolt and nut threads... and makes all Elastic Stop Nuts self-sealing against Liquid Seepage.

As a result, all Elastic Stop Nuts protect permanently against thread corrosion and resultant failure.

ESNA
Elastic Stop Nut Corporation of America

ELASTIC STOP NUTS



INTERNAL
WRENCHING



ANCHOR



INSTRUMENT
MOUNTING



SPLINE



CLINCH



GANG
CHANNEL

PRODUCTS OF: ELASTIC STOP NUT CORPORATION OF AMERICA

his group had renounced all claims to federal income tax exemption.

The move wasn't prompted by anything resembling altruism. For one thing, tossing out tax exemption wiped out at one swish the most effective weapon of the anti-co-op forces. But of greater significance is the fact that now C.C.A. can move into the big cities and go after the vast urban market. As long as it was tax exempt, it couldn't do this. Under Internal Revenue Bureau rules, co-ops can claim exemption only if they do 85% or more of their total business with farmers or their representatives.

• **Expansion**—C.C.A. is already one of the biggest consumer co-ops in the U. S. In the year ended Aug. 31, it grossed \$37-million, will return patronage dividends totaling 10%, or \$3.7-million, as against \$1,650,000 in 1946. It has 250,000 individuals holding shares in 1,200 member co-ops in 17 midwestern states.

Abandoning its federal income tax exemption may well make C.C.A. the nation's biggest cooperative of any kind. The move amounts to a green light for a vast expansion into the virtually untouched field of urban consumer cooperation. And Cowden revealed that already C.C.A. has taken its first step in that direction: it plans to build a \$250,000 warehouse in Denver along with 11 others in the mountain states.

RADIO STETHOSCOPE

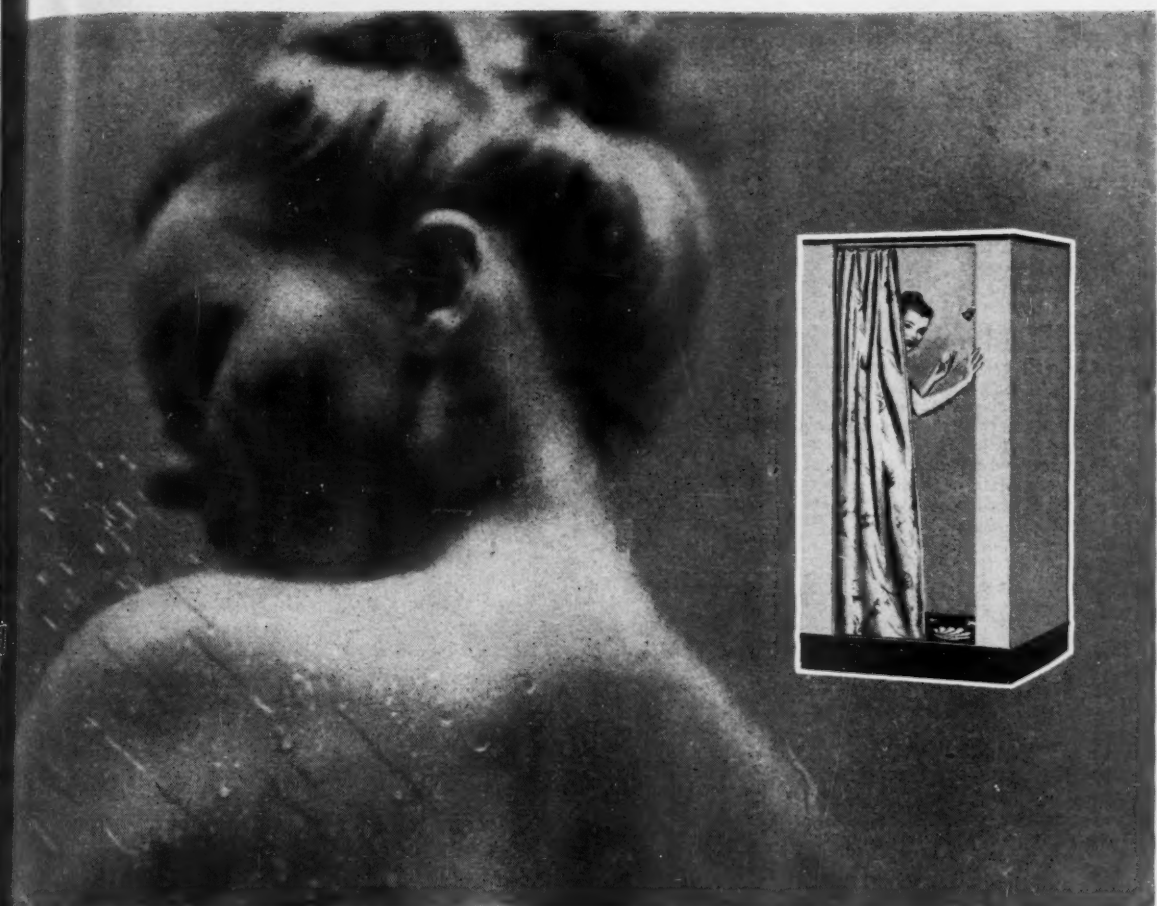
A recently developed method for testing the quality of radio shows before they go on the air has become available to anyone: In a new contract signed with National Broadcasting Co., Schwerin Research Corp. can now accept clients who are not NBC customers.

Because of this, youthful Horace Schwerin, head of the pretesting outfit, is now in Hollywood to apply his stethoscope to the Fibber McGee show, sponsored by S. C. Johnson & Son, Inc. (wax). In this case, he will be working not for NBC but for Needham, Louis & Brordy, advertising agency for Johnson. This happens to be an NBC show, but Schwerin can do business with other radio networks or their shows' sponsors.

Schwerin's first contract with NBC, signed about a year ago (BW—Sep. 21 '46, p74) was exclusive. His job: to pretest the network's radio shows—including commercials—to find out what the public likes. To make the test, Schwerin assembles a panel of listeners, records their reactions to the show mechanically. Schwerin thus catches the show's low spots, which can be doctored before it goes on the air.

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BC,
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Tons of water won't mar this beauty

shower cabinet, to stay attractive, has to be able to "take it." Tons of water beat on the smooth baked enamel walls, which no ordinary material would long withstand.

But now leading manufacturers are making handsome, modestly priced cabinet of ARMCO galvanized PAINTGRIP — that takes and holds a glossy baked enamel finish through thousands of showers.

First the strong base of special-quality steel is given a full-weight protective zinc coating. This coating is then mill-Bonderized to take smooth finish and keep the baked enamel from peeling or flaking. Experience shows that paint or baked enamel lasts several

times longer on PAINTGRIP than on ordinary steels.

Quality-minded manufacturers are using ARMCO Galvanized PAINTGRIP for shower cabinets, furnace casings, washing-machine parts, garage doors, laundry dryer cabinets, metal awnings and other equipment for home and farm. Like other special-purpose steels developed by Armco research, PAINTGRIP was created for fabricating into more durable, better-looking painted products.

Buyers who want to be sure of quality in sheet steel products look for the famous Armco label. The American Rolling Mill Company, 365 Curtis Street, Middletown, Ohio.
Export: The Armco International Corporation.



THE AMERICAN ROLLING MILL COMPANY

THE FAMILIAR ARMCO TRIANGLE IDENTIFIES SPECIAL-PURPOSE STEELS THAT HELP MANUFACTURERS MAKE MORE ATTRACTIVE, MORE USEFUL, LONGER-LASTING PRODUCTS.



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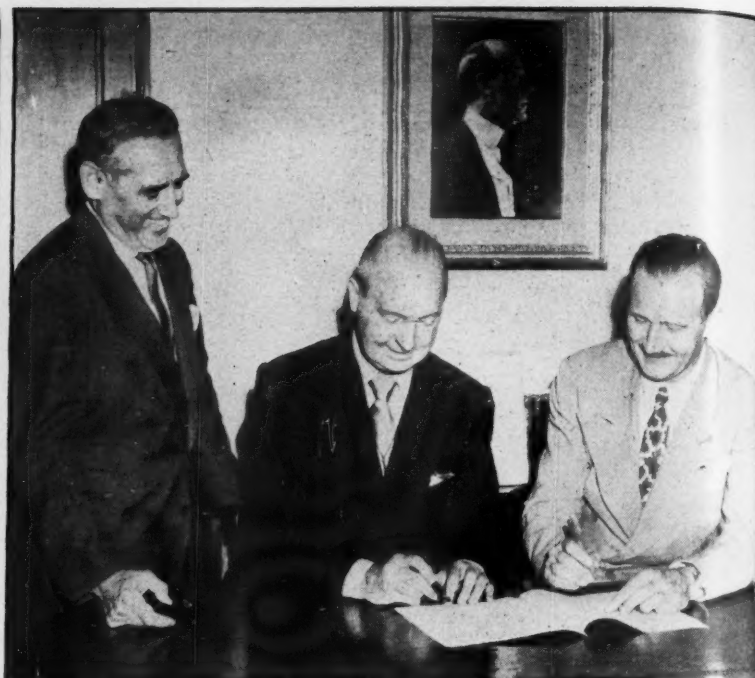


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ANOTHER MERGER: Mark Cross' Gerald Murphy (center), signs with George Armstrong (left), head of Drake America Corp. Joseph Givner, Drake merchandiser, watches.

Drake America Takes Over

Purchase of control in Mark Cross is latest step in rapid expansion of recently formed company. It is already sole agent for many U. S. firms' exports, foreign companies' shipments here.

The Mark Cross Co., century-old manufacturer and distributor of fine leather goods, has succumbed to the growing merger trends (BW—Mar. 22 '47, p. 19). But merchandising executives are only secondarily concerned with the fact of the merger itself; they are primarily interested in the company with which Mark Cross has merged—Drake America Corp.

Drake is a newcomer with big ideas. It was organized only last spring as an "export, import, and domestic trading company," has an authorized capital of \$5-million, of which \$3-million has already been privately subscribed. Its expansion has been rapid in two directions:

(1) It is buying controlling interest in well-established manufacturing and distributing organizations;

(2) It is making exclusive export arrangements with manufacturers in this country, and exclusive import arrangements with manufacturers abroad.

• **Typical**—Drake's deal with Mark Cross was typical of the first type of expansion. It bought outright 51% of Mark Cross stock, at an undisclosed price. Mark Cross will retain its identity and its executive personnel under

the new setup. According to its president, Gerald Murphy, "there will be no change in Mark Cross policy in the traditional quality of Mark Cross products."

But all Mark Cross activities will expand. Output of leather goods, both here and in England, will climb. Exports, hitherto a minor factor in Mark Cross sales, will be pushed. Domestic distribution, mostly through better department stores and specialty shops (BW—Nov. 16 '46, p. 60), will be greatly expanded.

• **Domestic Subsidiaries**—Among Drake's other recent American acquisitions:

• **House & Garden Furniture, Inc.**, Miami Beach, Fla. This successful organization has specialized in distribution of furniture and home furnishings. It has a retail outlet on Miami's Biscayne Blvd. Under Drake, all present activities will be expanded. In addition, the company will become the nucleus of Drake Southeast, which will handle southern distribution of all Drake products.

• **Drake New England of Hartford, Conn.** Originally the Connecticut Precision & Hardware Co., this firm has specialized in distribution of pre-

ion instruments. It will become the distribution center of all Drake products in New England and northern New York State. It will also develop lines of products for Drake to export.

• **Abroad**—A number of foreign subsidiaries will have important places in Drake's export and import business. Drake Trading Co., Ltd., is already operating in London. Arnott & Co., S. A., of Buenos Aires, founded in 1935, has become Arnott Drake; a new subsidiary, Drake Argentina, is being set up in the same city to handle distribution of Drake America and Drake products. Drake Canada is being formed.

Drake America is already exclusive export representative for a number of U. S. manufacturers. In the textile field it has signed up American Woolen Co. (for all countries except Canada), Security Mills (wool knit goods), and Henry Rosenfeld (dresses and cosmetics).

• **New Acquisition**—This week it announced purchase of controlling interest in Rogers International Corp. and Armstrong Rubber Export Corp. This means exclusive export of Armstrong tires and tubes and of the lines handled by Rogers International—Indian motorcycles and accessories, as well as various well-known brands of auto accessories, garage equipment, heavy industrial equipment, diesel engines, air conditioning and refrigeration equipment, agricultural implements, and hardware.

As an importer, Drake is the exclusive U. S. representative of various foreign manufacturers of luggage and leather goods; rubber goods and plastics; pottery and china; baby carriages; gloves; fine yarns; woollens, worsteds, and gabardines; cotton and woolen hosiery; Scotch whisky; brandy.

• **Personnel**—Drake America is headed by George L. Artamonoff, who has a wide experience in merchandising. From 1931 to 1945 he was with Sears, Roebuck—from 1937 on as director of Sears International, Inc. Joseph Givner, who has held top executive positions with Sears, Saks Fifth Avenue, R. H. Macy, is with Drake and so is Howard L. Harmon, former Macy executive.

P. S.

Safeway Stores, Inc., will pass the \$1-billion mark in sales if the last half of 1947 is as good as the first half, company officials say. Six-month sales reached \$579-million.

Another newsletter will make its appearance next week, this time covering all phases of the television industry. Called Video, the new weekly will be directed at "top ranking business and industry executives in every field." United Video, 516 Fifth Ave., New York 18, is the publisher.

BUSINESS WEEK • Sept. 13, 1947

Fluorescent lighting is a fine booster for production and for the morale of employees—when it provides the kind of steady, useful illumination that modern offices and plants demand. And that's where General Electric Watch Dog starters come in. They're made with just one thought in mind—to help you get the best possible lighting with the least cost for maintenance and replacement. As soon as failing lamps start to flicker, Watch Dogs cut them out of the circuit in less than a minute. After relamping, a push of a button puts your fluorescents right back at their peak. Eyestrain caused by constant blinking is completely eliminated, and you will be surprised at the improvement in production efficiency in any working area.

General Electric Watch Dog starters have some other pretty important advantages, too. They protect ballasts by eliminating the torture of intermittent service.

They frequently outlast ordinary starters 5 to 1.

Watch Dogs are only one of the complete line of accessories which General Electric makes, to help you make the most of fluorescent lighting. Better check with your lighting contractor, or supplier, to make sure that the fixtures you buy and the lighting systems you operate are G-E equipped all the way through.

For full information, write to Section Q71-910, General Electric Company, Bridgeport 2, Connecticut.

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FINANCE (THE MARKETS—PAGE 118)



DETROIT'S STOCK EXCHANGE typifies the nation's regional securities marts

Regional Marts Do a Job

They don't attract so much attention as New York's Big Board, but they play a vital role in financing local industries. An example: Detroit Stock Exchange, 40 years old this fall.

To most people, "stock exchange" means the Big Board in Wall St.

Manhattan's mart is the country's oldest and biggest. And it is far and away the best advertised—not only through the paid space it buys, but also through the gratis efforts of politicians who would save the U. S. (and elect themselves) by rubbing out financiers and financing.

Yet the Big Board isn't the nation's only organized securities mart by a long shot. Twenty-three exchanges of varying size are scattered throughout the land, with a twenty-fourth "American" edition in Honolulu. For good measure, Canada has four stock exchanges just a few miles over our border.

• **The Network**—Chicago and San Francisco haven't let Gotham get the jump on them—numerically, anyhow. Like New York with its Big Board and Curb, they have two exchanges apiece. The others are in Baltimore, Boston, Cincinnati, Cleveland, Detroit, Los Angeles, New Orleans, Philadelphia, Pittsburgh, Minneapolis-St. Paul, Richmond, Salt Lake City, St. Louis, Spokane, Washington, Wheeling, and—uniquely—Colorado Springs.

All these regional exchanges operate under Securities & Exchange Commission rules. And while Wall Street gets

the headlines, the smaller markets have booms, bumps, and trading sprees, too.

• **Complaint**—Brokers without Big Board seats make up most of the membership of the regional exchanges. Many resent the publicity focus on lower Manhattan—although at times life can be more pleasant outside the spotlight. But a lot of the regional brokers have a gripe that hits closer to the pocketbook: they feel that too much "home business" in stocks and bonds goes to New York.

Just the same, the regional exchanges go along supplying a mart for a big chunk of business that stays home.

• **Case Study**—For a good insight into how and why, take a look at the Detroit Stock Exchange—which this week is busily polishing up the brass getting ready to celebrate its 40th anniversary this fall. (Officials can't really pin the birthday down to a specific date; the time lapse has thrown a fog around the exact moment when formal exchange trading was born.)

The Detroit market isn't the largest or the smallest of the non-New York exchanges. Chicago has the biggest regional mart; then come the Boston, Philadelphia, and Detroit exchanges. On the basis of the number of shares traded, those three are closely tied for second place. On the dollar value of shares



THE STORY OF THE ATLANTIC REFINING COMPANY

A Company Integrates from Oil Well to Consumer

Ever since the first "crackpot" started trying to find oil by drilling artesian wells for it, Atlantic has been in the oil business. But after fourteen years the company was merged into Standard Oil, became independent again in 1911. By that time Atlantic was set up as a leading refiner but had neither crude oil to process nor organization to sell its products. Aggressive management decided to integrate . . . capital was needed. In the course of years the services of Smith, Barney & Co. have been repeatedly used to underwrite debentures and stock for this purpose.

To do the job

Atlantic began to push its retail outlets and originated the first real filling station. By 1916 the company was drilling for crude oil. Today, as an index of integration—over half of the petroleum refined by the company is from its own wells. This production plus tankers, pipelines, refineries, and marketing facilities in some forty countries make up one of our largest integrated oil companies.

To serve you

Last year Atlantic supplied \$229,000,000 in goods and services to people of the Americas, Europe, and Africa. A wartime idea made possible a gasoline better than prewar fuel. Atlantic by-products are being used—for synthetic rubber, cosmetics, penicillin . . . for a new wetting agent, ways to improve our standard of living.

In 1946 the fruits of good management included \$48,000,000 in salaries and wages for employees . . . nearly \$5,000,000 in dividends to 32,000 stockholders whose total investment averaged \$13,000 per employee. And, in times of rising costs, Atlantic had helped the industry keep its prices down.

Money in action

A steady flow of capital has helped to transform this refining company into an integrated concern which brings oil products all the way from well to your car. And the progress has not stopped. Since 1940 alone Atlantic's capital expenditures have totalled over \$200,000,000 for improvements in producing, refining, transporting, and distributing.

The money for such expenditures has come principally from two sources: a very conservative dividend policy, the plowing back of earnings . . . and the underwriting of securities by Smith, Barney & Co.

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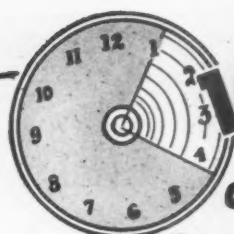
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16 minutes

changed the plans of a multi-million dollar company



It happened by sheerest accident. A new color film, with sound track, showing living conditions in Santa Clara County had just been released by the San Jose Chamber of Commerce.

By some quirk of fate, it was shown before the operating personnel of a multi-million dollar concern in a large Eastern city.

For 16 minutes the group saw and heard how people live in a county where there's only 17 degrees difference in average summer and winter temperatures—where outdoor living is in style 12 months a year—where workers own their own bungalows—where lawns and rose bushes are part of every home.



As the film ended a key executive voiced this remark, "We've been talking about a Pacific Coast plant site. This is it!"

This new film is *not* an industrial film. It simply shows living conditions in Santa Clara County. And these living conditions are basic reasons why Santa Clara County is today the fastest growing industrial area on the Pacific Coast.

Would you care to show this 16 millimeter film with sound track to your organization? We'll gladly arrange it.

WRITE FOR THIS FREE BOOK

The New Pacific Coast is a factual, 36 page book, giving all the basic facts about Santa Clara County. It's yours for the asking—without cost. But write on your business letterhead.

SAN JOSE CHAMBER OF COMMERCE
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SANTA CLARA COUNTY *California*

The population center of the Pacific Coast



TO FLORENCE STOVE

New head of Florence Stove Co., Gardner, Mass., is Edward F. Dobson (above), who will become president and director on Oct. 1. He succeeds Robert L. Fowler, who will continue as board chairman.

As former president of Rundle Mfg. Co., Dobson brings to his new job a wide experience in manufacturing. Rundle is a subsidiary of Sears, Roebuck & Co., for some years a major purchaser of Florence stoves.

traded, Detroit probably is the smallest of the three. Reason: Many higher priced shares are listed on the two eastern markets.

• **Birth**—Detroit brokers once could handle their trading back and forth in local securities on an over-the-counter basis. But by 1907 the auto industry was beginning to grow out of its swaddling clothes. Its diet called for more and more financing. Brokers saw that the best way to provide it was to set up a central marketing place to handle the securities of the infant companies.

So seven members of the Detroit Brokers Assn. formed the Detroit Stock Exchange.

At first they could do all their exchange business in one-hour trading sessions daily. Trading rules were very simple. The 62 stocks listed at the start were merely called out in alphabetical order by the secretary. As each was called a market in such shares was established, and the day's buying and selling in the issue was immediately completed.

• **Growth**—The exchange grew with Detroit. By 1916 members were handling a yearly trading volume of over a million shares (compared with 1907's few thousand) and there were 72 listed is-

Five years later, with 165 stocks and annual volume had soared above 100 million shares.

Then came a slump of several years in market activity. Detroit was going through a wild local real estate boom; providing the credit to fire it, Detroiters had loaned out their spare cash at a 7% annual return. So trading in stocks held little attraction for them. Then in 1927, despite busy security markets elsewhere, less than 3-million shares changed hands on the Detroit Stock Exchange's trading floor.

Came 1929—But the city finally brought the country's stock speculative

fever. In 1928 local trading activity came to almost 8.5-million shares valued at \$700-million. And in 1929 the volume jumped to about 12-million shares valued at \$878-million. The price of a seat on the Detroit exchange had fallen to \$74,000, compared with \$500 in early 1928.

Of course, Detroit shivered in the falls that followed the fever. At the first, the exchange's trading volume dropped below 2-million shares a year, and the cost of a membership had fallen as low as \$225.

Comparison—Even so, the Detroit Stock Exchange's trading volume held up a little better than the Big Board's. The New York Stock Exchange's maximum drop in volume was some 85% vs. Detroit's 75%.

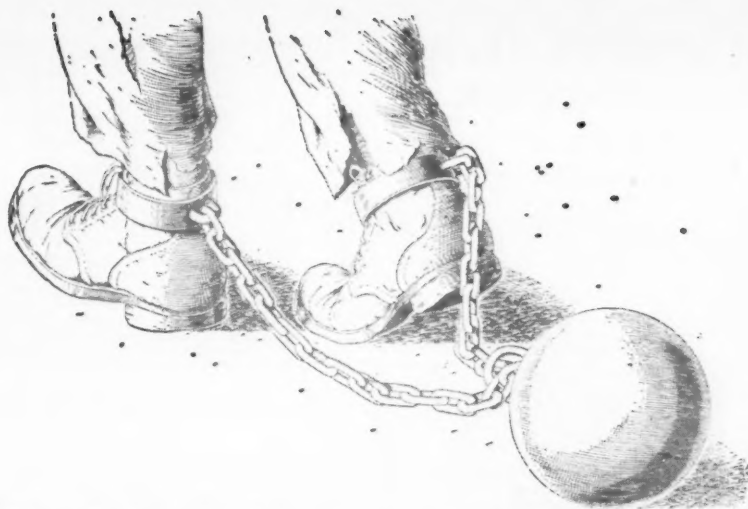
Other comparisons also show that the Big Board may not be "stealing" as much business away from the regional exchanges as the little fellows seem to think.

Despite the trading gain that the 1929-46 bull market brought, for example, the New York Stock Exchange in 1945 could report an annual volume only 34% the size of 1929's; last year the ratio fell off to 32%. But the Detroit exchange in 1945 did 50% as much business as in 1929 and, in 1946, 42% as much.

What's Listed—Local issues form the backbone of the Detroit Stock Exchange's business. But the exchange hasn't stopped there. It has been active, and successful, in recent years in obtaining listings of "national" issues in which Detroit traders and investors maintain a lively interest. Of the 192 stocks now traded on the Detroit floor, 38 are also listed on the Big Board and 42 on the New York Curb.

Among these "national" issues are such popular common stocks as Armour, International Nickel, Loew's, Kroger Grocery, Northern Pacific, Westinghouse. At times some of these dually listed issues have been two or three times as active in the Detroit market as in Manhattan.

Advantages—For Detroiters such dual listing holds definite advantages. Trans-



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AN OLD BANK CAN LEARN NEW TRICKS

As modern as tomorrow, a brightly-hued poster appearing in Quaker City trolleys and subways, is a poser for strangers. But it exerts advertising impact on Philadelphia most of them more familiar with the simple PSFS than the title—Philadelphia Saving Fund Society. Described as the nation's oldest mutual savings bank, the 131-year-old society nevertheless keeps up with the times. It points with pride to its ultramodern Market St. building erected in the '30's. It was the talk of the town and the PSFS letters atop it had publicity value even then—though many a grim depression wit translated them as "Philadelphia Slowly Facing Starvation."

acting business locally saves taxes, since New York State collects some stock-trading levies that Michigan doesn't. And local brokers don't have to pay part of their commissions to their New York correspondents for executing orders on the Curb or Big Board.

Also, the double listing gives Detroit dealers an opportunity to utilize whichever market happens to be the most advantageous to their clients at the time orders are received.

But the Detroit Mart's most important job probably is to serve as a seasoning place for the issues of growing local companies which can't yet qualify for Big Board or Curb listing. It has done this job well. Many automotive issues now traded nationally enjoyed their first listing in Detroit when they were mighty small potatoes.

• **The Setup**—The Exchange, which now has 50 members, is an association patterned after the Big Board—with its rules tailored to fit the needs of a truly regional exchange. Its listing requirements, for instance, are more liberal than those of the Big Board. Listing fees are also considerably cheaper. That doesn't mean, however, that it isn't choosy in accepting new listings. These have always been well scrutinized. The progress of newcomers to the list is also watched carefully.

Currently at the helm of the exchange is Milton A. Manley, head of M. A. Manley & Co. (He was nervy enough to start his investment firm in mid-1932 when most people were running the other way from the brokerage business.)

He had come to Detroit to work for the National City Co. in 1921, left that firm in 1925 to head up the local office

of N. W. Halsey & Co. Manley, past president of the Detroit Stock Club, is now a member of the District of the National Assn. of Security Dealers, and is serving his year as a member of the board of directors of the Detroit Stock Exchange.

NEW FIELD FOR INSURANCE

One evening not long ago a 24-year-old ex-Marine named Joseph L. Driscoll and his wife returned to their Chester (Mass.) home after an evening out. They found the Driscoll young man happily teething on some mother while the teen-age baby sitter unconcernedly threw a party for some friends.

This incident spurred Driscoll to set up an unusual baby sitting service in the Boston area. Main distinction of Willie Winkle Registered Sitters Service is that it protects clients against possible consequences of similar negligence—by providing accident and liability insurance along with each sitter.

Through a Boston Insurance Company, Maurice H. Saval, Driscoll pays \$25,000 insurance on each child and another \$50,000 to protect parents against any mischief the kids might cook up if the sitter should doze.

But Driscoll looks on his insurance plan as more of a psychological than protective factor. He has carefully screened applicants to assemble a responsible, mature staff. The result is a group of 65 sitters, mostly married women with children. As a further hedge against misfortune, Driscoll has a contract with a 24-hour doctors' and nurses' agency.

Driscoll's rates are 60¢ an hour, of which goes to the sitter.

Q.

WHAT ONE ORGANIZATION CAN



CONSTRUCT AN OIL REFINERY?



ASSIST IN ITS MANAGEMENT?



ARRANGE NECESSARY FINANCING?

A.

Stone & Webster, Incorporated . . . through three separate corporations under its general direction. Singly, or in combination, they are available to American industry—bringing the long-established standards of Stone & Webster performance to the fields of engineering, finance and business operation.

1. STONE & WEBSTER ENGINEERING CORPORATION furnishes complete design and construction services for power, process and industrial projects. It also constructs from plans developed by others; makes engineering reports, business examinations and appraisals . . . and undertakes consulting engineering work in the industrial and utility fields.

2. STONE & WEBSTER SERVICE CORPORATION is that part of the organization which supplies supervisory services for the operation and development of public utilities, transportation companies and industries.

3. STONE & WEBSTER SECURITIES CORPORATION is an investment banking organization. It furnishes comprehensive financial services to issuers of securities and investors; underwriting, and distributing at wholesale and retail, corporate, government and municipal bonds, as well as preferred and common stocks.

The business of the parent company also includes investments in enterprises to which it can constructively contribute capital . . . substantial enterprises ready to take advantage of present opportunities or not yet ready for public financing.

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Give your customers and employees the best in thirst relief at lowest cost. With OASIS Electric Water Coolers there's a refreshing difference in the effortless ease of "dialing a drink." A model for every need! Write.

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THE WEIGHT OF PROFESSIONAL OPINION

In 1946, 693 advertisers placed 3,239 pages of business-goods and services advertising in the pages of this magazine.



... more than the total for all other general business magazines—combined.

BUSINESS WEEK	3239.43
Magazine 2	1320.63
" 3	482.67
" 4	312.25

Mortgage Debt Reverses Trend, Starts Up Again

For some years, the U. S. real estate mortgage debt has followed a steady downward pattern (BW—Nov. 28 '42, p101). Last week the Mortgage Bankers Assn. of America, reported that 1946 statistics show a sharp reversal.

At year's end the mortgage debt stood at \$34.7-billion, an increase of \$4.3-billion (13.4%) over 1945. And, says the association, everything points to a continuance of this trend during 1947.

• **Trend Reversed**—The new trend first came to light in the farm mortgage field. Last year farm mortgages edged up some \$170-million to reach an estimated \$5.2-billion (BW—Aug. 9 '47, p68).

The biggest single class of mortgage lenders are banks, whose holdings totaled \$10.2-billion at the year's end, or 30% of the national total. They are followed by individuals, mortgage companies, and other lenders, with \$8-billion (23%); savings and loan associations, with \$7.2-billion (21%); life insurance companies, with just over \$7-billion (20%).

• **Federal Mortgages Off**—The Mortgage Bankers' figures underscore another

trend during 1946: Federal agencies continued to pull out of the mortgage field. Mortgages held by them fell 18% last year to reach a total of less than \$2-billion. This is only 6% of the U. S. total. (Continued liquidation of the HOLC alone accounted for almost 50% of the government's \$432-million decline in holdings.)

Meanwhile, private holdings made a gain of 14.5%, more than enough to offset the Federal decrease.

• **Insurance Firms Passed**—Biggest upward stride was made by the savings loan associations, whose holdings went up 32.1% over 1945, passing life insurance companies. Other increases: commercial banks (22%), mutual savings banks (9.5%), life insurance companies (7%).

Mortgage companies and individuals also. By running up their holdings \$1.2-billion they very nearly wiped out the \$1.6-billion decline experienced in 1945.

DIRECTORS GET PAID MORE

Rank-and-file workers aren't the ones whose pay is going up. Corporate directors have been caught in the surge, too. So reports the National Industrial Conference Board of New York.

The Board sampled 184 non-



THE GOLD RUSH OF THE WARRIORS

Taking the attitude that cash in hand is better, war veterans jammed banks in New York (above) and elsewhere throughout the nation last week to cash terminal leave bonds. The Treasury reported that \$521-million was paid out the first six days, admitted that the total was incomplete because of delayed bank reports. This week, however, the rush tapered sharply—evidence that a veteran majority is holding out for a "rainy day." The cash total represents over one-fourth of \$1.8-billion held by some 8.9-million veterans throughout the nation.

ectors of large companies. The tally: 1946 "more than half received \$1,000 more for their duties as directors. Most one-third were paid regular salaries of \$5,000 or more." The board's figures show that in 1948 more than two-thirds of the directors it questioned got less than \$500; 1% got more than \$5,000. Even in 1945, the average amount earned by outside directors was \$850; more than one-third of those sampled got less than \$1,000.

CONVAIR TO SIMPLIFY

Consolidated Vultee Aircraft Corp. planning to get out of its nonaircraft activities (it owns 48% interest in ACF-Will Motors Corp., makes ranges and frozen-food storage units). Plan is to set up a separate company, owned by Convair stockholders.

Avco Mfg. Corp. (formerly Aviation Corp.), which owns 26.1% of Convair's common stock, will be big stockholder in new firm, as yet unnamed. Avco will relinquish its management control of Convair, eventually will give up its entire interest in the firm. This would make Floyd Odlum's Atlas Corp. the biggest Convair stockholder.

S.

St. Louis-San Francisco Ry. directors have decided to postpone consideration of recent proposals to merge with the Mobile & Ohio (BW-Aug. 30 '47, p. 47). They're waiting "until more information is forthcoming from the M. & O. management to substantiate contentions of appreciable benefits to Frisco security holders." But they probably haven't put the deal on the shelf for good.

Life insurance companies are continuing to boost their investments in home-producing real estate (BW-Jul. 14 '47, p. 41). New acquisitions of realty in the first half of 1947 totaled \$94-million, brought the total of such holdings to \$760-million at mid-year. Purchases of nonhousing realty accounted for \$58-million and swelled the total of such holdings to \$128-million. Another \$22-million went into housing projects and enlarged the companies' investment in that field to \$157-million.

The Tucker Corp. stock offering closed Sept. 9 with over 3-million shares sold of the 4-million originally offered for \$5 (BW-Aug. 9 '47, p. 66), reports the underwriter, Floyd D. Cerf Co., Inc. Up to recently, also, the corporation had received about \$6-million of additional cash through the sale of dealer franchises. So it appears that Tucker now has more than the \$15-million of working capital needed to qualify as lessee of the huge Dodge-Chicago war plant.

How Foamglas Insulation is Different AND WHY IT IS BETTER



In core walls, PC Foamglas supports its own weight. Laid between brick, tile, blocks and many other types of backing and facing, it helps control temperature, minimize condensation—indeinitely.

PC Foamglas is the only material of its kind. It is not a fiber, not a wool, not a board or a batt. It is literally a foam of glass, solidified into big, light-weight blocks, each composed of millions of minute air-filled glass cells.

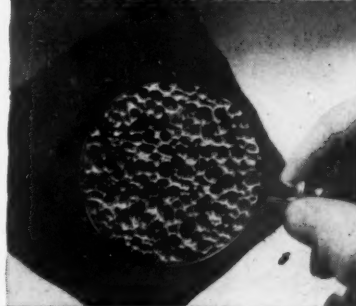
Its unique cellular structure gives Foamglas excellent insulating properties. Since it is glass, it is impervious to many elements that usually damage or destroy other insulating materials. When properly engineered for the specific job in hand, and installed according to our published specifications, PC Foamglas retains its original insulating value permanently.

PC Foamglas has proved its ability to help maintain temperature levels, to minimize condensation, without repairs or replacement due to failure of the material. First cost is last cost when you insulate with PC Foamglas—whether walls, floors, roofs or ceilings.

Why not send the coupon for complete information? Pittsburgh Corning Corporation also makes PC Glass Blocks.

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T. P. & W. ROUTE**

T. P. & W. is rolling—faster, better than ever before. New schedules to speed shipments over 259 miles of "direct route" track from the Indiana border to the Mississippi River — a vital link between East and West rail-

roads. Rich areas for industrial sites in this "fertile heart" of Illinois where many resources abound. Use T. P. & W. for fast service linking East and West.

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Coal, water supply, transportation, fertile farms — and other resources make Central Illinois a bright spot for industry. Ideal factory sites exist along T. P. & W. right-of-way. Check into this prosperous area for your future plant expansion requirements.

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**TOLEDO, PEORIA
& WESTERN
RAILROAD**

*The Road That's Best
Linking East and West*



LABOR

C.I.O. Right Wing Perks Up

Taft-Hartley bars against Communist leaders focus attention on union internal problems. Rank-and-file ground swell against leftists results in significant victories for the right.

Left-right wrangling within the C.I.O. grew hotter this week as its major unions felt the pinch of the Taft-Hartley law. Two of them, the Oil Workers and the United Auto Workers, faced loss of bargaining rights because C.I.O.'s national leaders refused to swear they weren't Communists.

There is a growing rank-and-file belief that small but influential left-wing blocs are a burden to the unions. This has strengthened the anti-Communist leaders. The support brought victories

for the right in several state conventions and in international union politics.

• **Convention Eve**—Coming on the eve of C.I.O.'s annual convention—as are conventions of its major affiliates—gains by the right were doubly important. And while they may not result in a major rebuff for leftists on convention floors, they should not be minimized. The Communist issue squarely slapped the C.I.O. when:

• In Texas, a federal judge upheld a requirement that labor unions file



GETTING CERTIFICATE of eligibility, the independent Machinists are "first in" under the new labor rules. Left to right: Undersecretary David A. Morse and Charles W. Straub of the Labor Dept.; Eric Peterson and A. J. Hayes of the union.

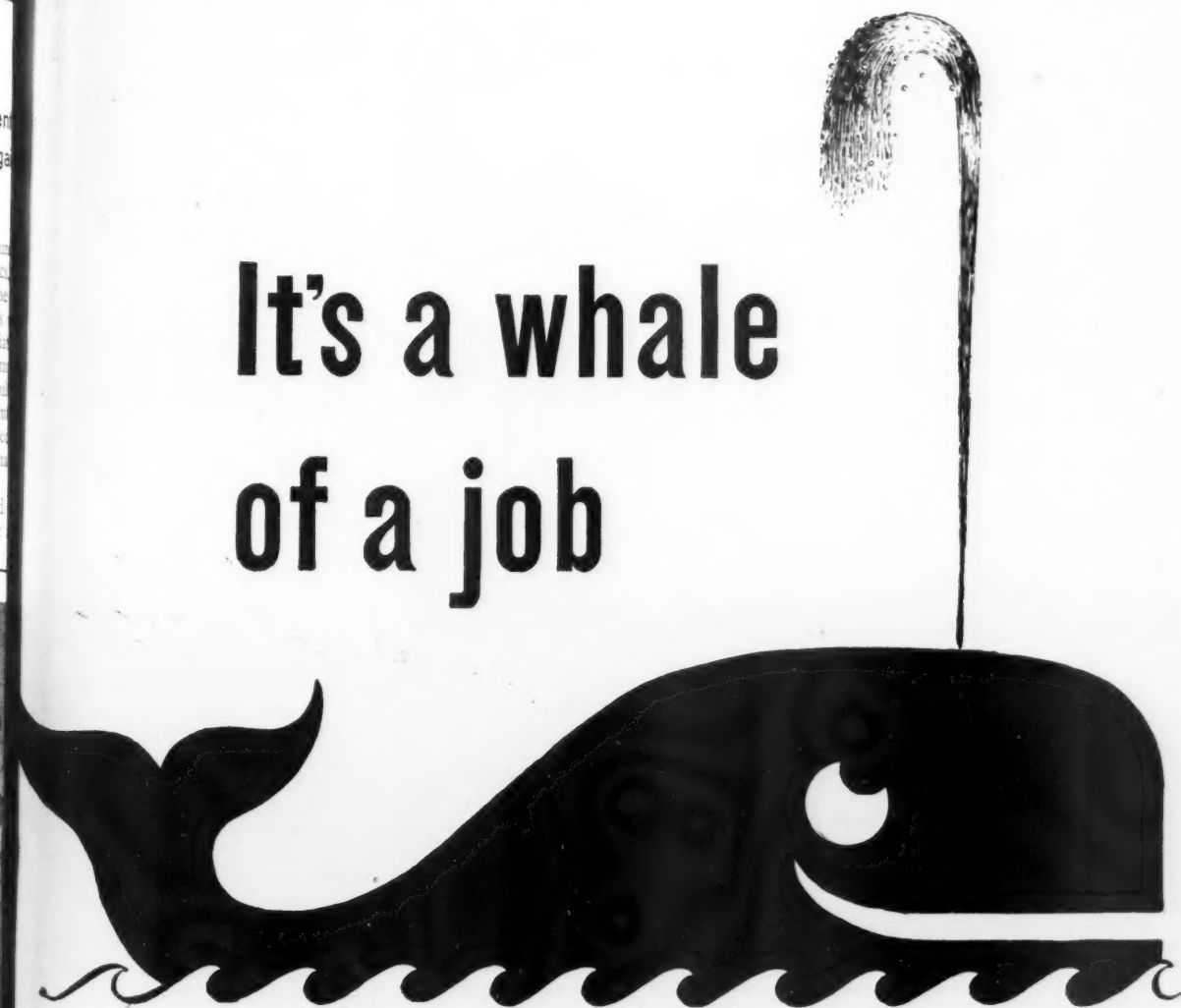
Machinists Are First to Qualify Under T-H Law

There isn't much doubt that, if a poll were taken right now, the 58-year-old International Assn. of Machinists would be voted the union most likely to succeed under the Taft-Hartley act. The I.A.M. won its favored position by being the first union to get a certificate that it had complied with the law's requirements: filing of financial statements and non-Communist affidavits.

This gives it the inside track to

the National Labor Relations Board's machinery for acting on union complaints and petitions. The 700,000-member organization really got in by a freak. It is outside the A.F.L. for the present because of a jurisdictional dispute with the carpenters union. This enabled I.A.M. to file the affidavits and other required data without having them pigeonholed while the parent organization made up its mind whether to comply.

It's a whale of a job



We're adding new telephones at the rate of about 300,000 a month. That is 10,000 a day . . . And still it isn't enough.

SINCE V-J Day, we've added more than 5,500,000 telephones. But fast as we put in one telephone, there comes an order for another. Sometimes two more.

So even though we're going full speed ahead, we haven't been able to catch up with all the orders for telephone service.

We're moving faster than anyone thought possible—with shortages and everything—and we have broken all kinds of records.

It's a whale of a job and we're eager and impatient to get it done. For we don't like to keep anybody waiting for telephone service.

BELL TELEPHONE SYSTEM



SOUNDScriber SPEEDS

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.. Telephone Calls

.. Telegrams



1 You're dictating a letter to your SoundScriber. The phone rings. It's a customer on long distance. You drop a 15-minute SoundScriber disc—flexible, feather-light—right on top of the 30-minute disc on your SoundScriber turntable and record this important call.



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3 You put still another SoundScriber disc on the turntable—a 4-minute disc, right on top of the telephone recording disc—slide the recording head over and dictate a telegram to your factory, or instruct your secretary to get the order in the works, with the telephone recording as confirmation.

Then you resume your routine dictating on the 30-minute disc right where you left off a few minutes before. Want to refresh your memory? Play back the last few words, a whole paragraph, or the whole letter. The light beam indexer tells you exactly where to resume recording.

Within this time—five minutes or so—an important piece of business has been transacted from beginning to end. A complete, permanent running record has been made of every detail of the transaction, every instruction for its execution. And you completed the job—

with one-man efficiency and dispatch, with a minimum of interruption. Nowhere in the world will you find business communication on such a split-second, time-saving, high efficiency basis... except in thousands of other offices where SoundScriber electronic disc dictation is the mainstay of business communication.

There is a great deal more to the SoundScriber story... facts and figures that prove it the most economical, efficient business machine you could have in your office. Send the coupon today for the complete SoundScriber story.

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davits that their officers are non-Communists.

• In Buffalo, U.A.W. board members were warned that noncompliance with the T-H law might cost the union its gains at the Glenn L. Martin Co. (BW—Aug. 30'47, p80).

The Oil Workers, with bylaws that bar Communists and require financial reports, sought a court order to force the National Labor Relations Board to deal with it. NLRB wouldn't count the lots cast in a Wichita Falls, Tex., representation election. Its reason: C.I.O. officers had not complied with the T-H law. The federal judge rejected the union contention that the T-H requirement of non-Communist affidavits was unconstitutional. He decided that the law is "fully constitutional."

Glenn L. Martin Co. unionists asked the U.A.W. board to reconsider a decision to boycott NLRB. Bypassing the board, they protested, would leave the local stranded without a contract, despite a heavy plurality in a recent bargaining election.

• **Gains for the Right**—Meanwhile, strong coalition of steel and pro-Walt Reuther auto unionists spearheaded new right-wing attacks, new gains over the leftists:

• In Illinois, a seven-year stranglehold which left-wingers had on the state C.I.O. council was broken. A right-wing proposal to reduce the size of the council from 30 to 9 members was adopted, 93,390 to 62,921. The right wing then succeeded in naming eight of the nine board members, including steel unionist Joseph Germano (picture, page 97), staunch anti-Communist, as council president.

• In Indiana, an upsurge of right-wing rank-and-filers upset a six-year regime dominated by leftists. Neal Edward pro-Reutherite in U.A.W., was elected state C.I.O. head; Claude Becktel, strong supporter of Murray in the Musicie steelworkers union, was chosen secretary-treasurer.

• In New York, what was expected to be a harmonious state convention split on sharp factional lines when right-wingers mobilized their greatest strength in recent years. While the right lost several major tests—including one over state C.I.O. endorsement of the American Labor Party in New York—it was heartened by its showing. Reason: in defeat it had not had the aid of Amalgamated Clothing Workers of America delegates, about one-third of the convention voting strength. A.C.W.A., a right-wing union, but works with the left in sponsoring A.L.P.

• **Other Developments**—There were other developments which could be even more important.

Growing strength is indicated for the pro-Reuther faction in the embattled United Auto Workers. The Illinois

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RIGHT WINGERS — Joseph Germano (left) and Philip Wightman shake hands after a setback dealt C.I.O. leftists in Illinois.

Indiana state council victories for the right wing were, at the same time, victories for U.A.W. president Walter Reuther over candidates loyal to the A.W. left-wing leadership—George Addes, secretary-treasurer, and R. J. Thomas and Richard T. Leonard, vice-presidents.

Moreover, minor committee elections in the big Ford Rouge Local 600, left-wing stronghold, lately have been won by right wingers. And swelling pro-Reuther strength could be seen in the referendum rejection by U.A.W. of a Team Equipment Workers merger proposal (BW—Jul.26'47,p88).

Reuther Strategy—Reuther now is handicapped because he has to work with a council controlled by the left. With 22 members, he can count on only eight. With eyes on the future, Reuther recently held a right-wing strategy caucus, then said they would back a complete slate against left wingers in elective offices. A whirlwind campaign to influence the election of convention delegates pledged to Reuther will get under way in October.

Other major conventions upcoming include the United Rubber Workers, opening Sept. 15 in Boston, and the United Electrical, Radio & Machine Workers in Boston, Sept. 22. At this time, no big showdown appears in the making for either of them.

Fuds—Two internal feuds may be the sparks to set off a factional battle at the C.I.O. convention in October. One is a feud between the left-wing Mine, Mill & Smelter Workers and the right-wing Industrial Union of Marine & Shipbuilding Workers. Basis is a fight over the shipyard workers' aid for a secession movement in M.M.S.W. (BW—May24'47,p94).

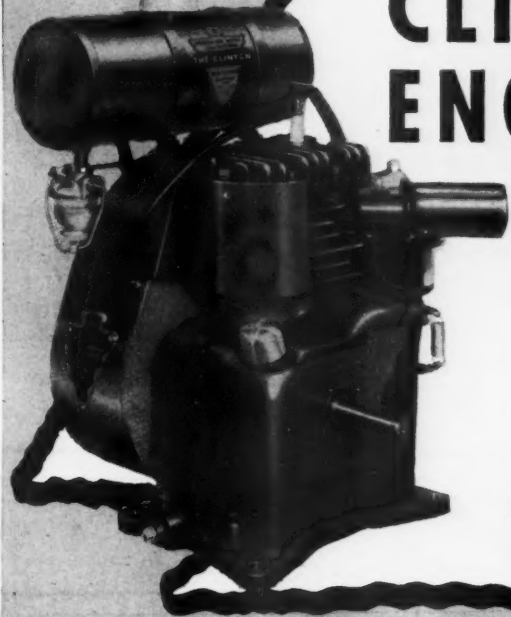
The other is a squabble between the right-wing Textile Workers Union of

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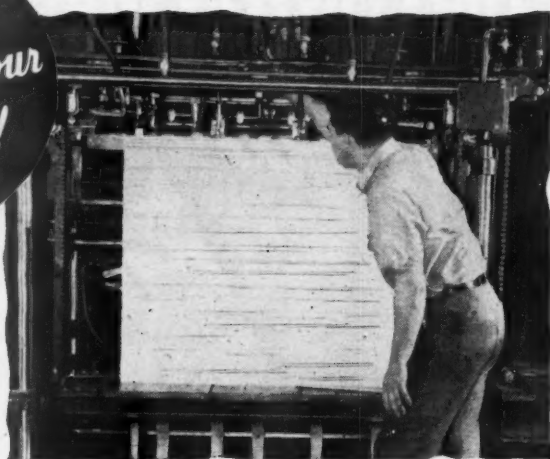
We appreciate the words of encouragement received from people in all walks of life. We sincerely thank the hourly rated workers, as well as men in management positions who sent congratulatory messages during this period of unrest.

DON THOMAS, President

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America and U.E. and other left-wing unions. T.W.U.A. has protested C.I.O. that the left wingers are Canadian organizing work for an A.F.L. textile union, friendlier there to wing policies.

• **Unity Threat**—The more serious threat to C.I.O. unity at the Boston convention may come from T.W.U.A.—a supporter of Murray. Its general executive board recently sent C.I.O. resolution condemning U.E. and Leather Workers organizing efforts in support for A.F.L.'s United Textile Workers in Canada. It charged that helped U.T.W. "because of political ship." T.W.U.A.'s board said that was contemplating formal charges C.I.O. "that these unions place their political loyalties above their loyalty to the C.I.O." Charges would be order at the C.I.O. convention.

A subsequent, fence-mending letter from Philip Murray to U.E. and Worker officials in Canada demanding an end to support for the A.F.L. text union. There was some backtracking by U.E., but T.W.U.A. resentment still strong.

AUSTRALIAN INCENTIVE

Wartime restrictions against high wage increases helped to overcome American union opposition to incentive pay plans. And now wage pegs in Australia's drive to curb inflation are slowing resistance there to incentive pay.

Until recently, the Australian government strongly opposed management incentive plan recommendations. It feared that management might use incentive pay as a device for tax evasion. Employers could shift just enough of their profits into bonus envelopes to drop their reported incomes into a lower tax bracket.

Moreover, the government argued that incentive pay and bonuses might encourage black marketing of scarce labor, and that the added income workers might endanger the government's determined fight against inflation.

Recently government economists changed their minds. Incentive pay, they decided, would assure higher production. This might be a more effective brake on inflation than low interest rates.

Union leaders warily reconsidered their position. They agreed to a study of the practicality of incentive pay based on weekly—not annual—payment of bonus payments. Employers agreed to the labor proposal.

One more hitch developed as the study got under way: The unions demanded free access to their employers' books. That received no more enthusiastic a response in the land down under than it ever has here.



IN 1946

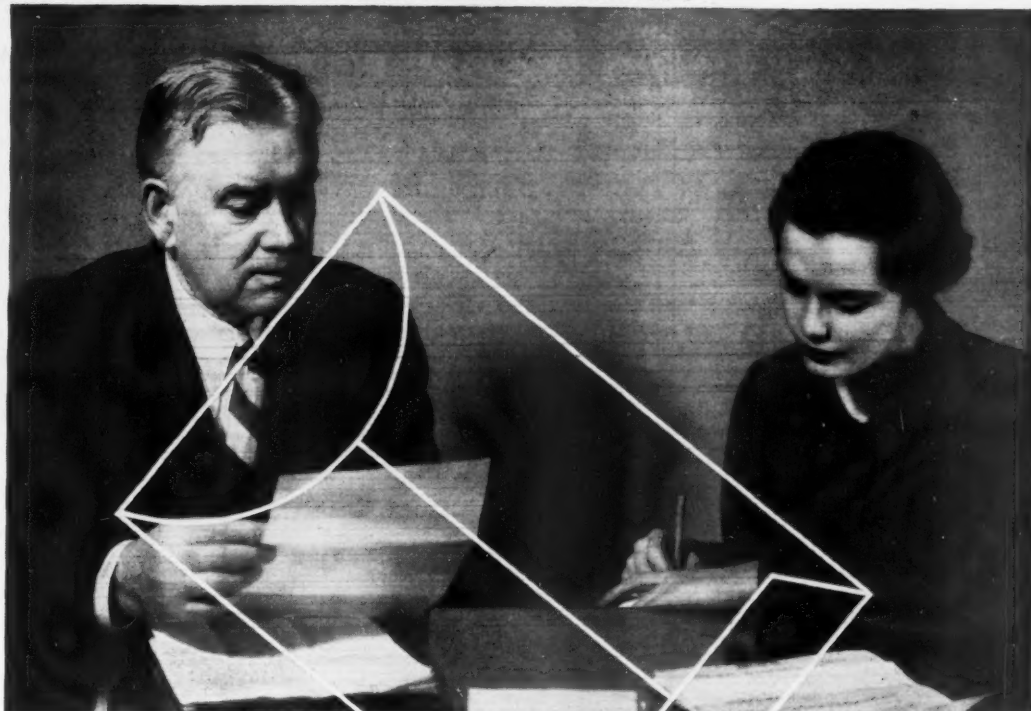
This magazine carried more pages of business-goods and services advertising, than any other general-business magazine or national news-weekly.

BUSINESS WEEK	3237.43	Pages
Magazine B	1795.37	"
" C	1690.69	"
" D	1330.94	"
" E	1320.63	"
" F	482.67	"
" G	312.30	"

(FROM PUBLISHERS INFORMATION BUREAU
ANALYSIS OF ADVERTISING—1946)

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EVERYONE HAS A STAKE IN EMPLOYEE SECURITY



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Progressive management throughout the country is answering the retirement income problem for employees through Connecticut General's Protected Pay Envelope Plan . . . a comprehensive plan which in its entirety also includes Group Life, Accident and Sickness, Hospital and Surgical Expense insurance for

employees. The flexibility of the Protected Pay Envelope Plan, which may be purchased in part or as a whole, makes it applicable to any organization's needs.

But your problem is different. Few organization problems fit into any standard formula. That is the very reason why in each case, large or small, Connecticut General is equipped to make an "Employee Security Analysis" before any recommendation is presented. Your "Employee Security Analysis" will tell the story sensibly, factually, and in detail, and in doing so will make your selection of the right plan much simpler. Ask your nearest Connecticut General office for details.

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There's extra power in H-W Jacks because they're factory-tested at $1\frac{1}{2}$ times their rated capacity.

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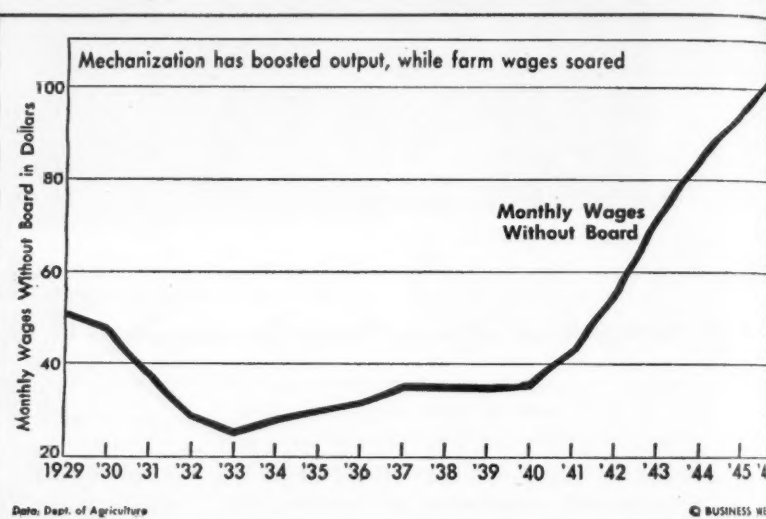
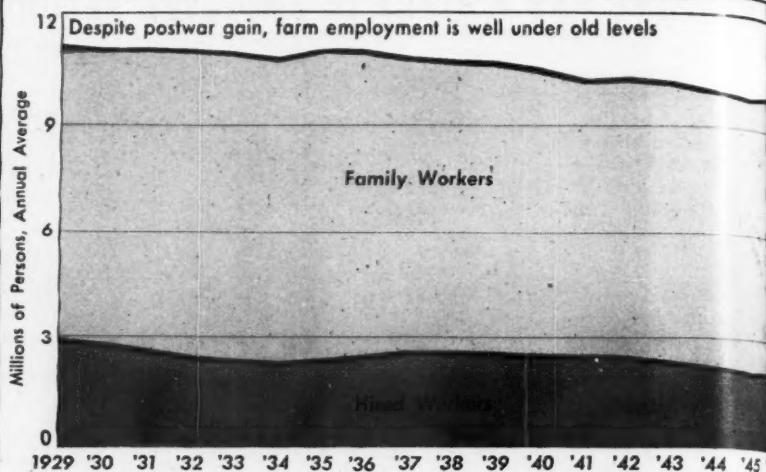


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Labor Problem Down on the Farm

Mechanization is cutting need for hired hands. Important changes in industrial labor supply, marketing patterns may result.

American farm labor is faced with a serious "displaced persons" problem as a result of technological advances in the nation's vast agricultural areas. Despite record-breaking output, the need for farm workers is substantially under prewar levels. And with the machine age for agriculture ripening all the time, it's likely that further sharp drops lie ahead.

• **Report**—The House Agriculture Committee last week issued an interim report in its current study of a long-range farm program. It said:

"Mechanization, new crop practices, elimination of marginal farms, and consolidation of uneconomic farm units will mean further displacement of people now making some kind of a living from

the land." The committee called for a study of the problem, already becoming acute in cotton and sugar-beet areas.

• **Warnings**—Similar proposals had been made before—by the National Farmers Union (BW—Aug. 10 '46, p88) and by worried federal agricultural economists. They had backed up their reports with a grim prediction: 2-million persons may be forced from farms within the next decade.

Businessmen, who had given only passing attention to the earlier warnings, were alerted by the House report. Undoubtedly, changes in the status of farm labor will have broad significance for industry. Labor supply, factory site, revision of marketing patterns can hinge on such factors as the number of per-

as employed on farms and the wages paid to them.

Details—Some answers to management's questions about farm labor are to be found in periodic reports of the Bureau of Agricultural Economics. Head observations may be made from farm (charts, page 100):

Although farm employment rose by 10,000 in the last year, it still falls short of prewar levels. Yet farm production is being maintained at a record-setting pace. The principal reason: mechanization.

The decline from prewar totals in farm employment is most marked in the hands classification, in contrast to the family-workers group (those who work on family-owned or -rented farms, deriving in the proceeds of their labor). There are 5% fewer hired hands on farms than during the prewar period. Only during the depression was the number of hired workers lower than it is today.

Farm wages have soared to the highest level in history. They were sent sharply upward during the wartime shortage of farm help (BW—Nov. 11 '44, p103). The trend has continued. The days of \$1-a-day hired hands no longer exist. Farmers now find it hard to get hands at \$4 and \$5 a day. Consequently, it has become cheaper—and more efficient—to mechanize, either on an individual farm basis or on a cooperative basis.

As a result, there is little likelihood of a return to prewar employment and farm population figures. Long-term farm programs center around lower-level employment and mechanization designed to boost productivity. Objective: to price American production low enough to make it competitive in world markets when supply begins to catch up with demand.

Steady Decline—Even before the war, the trend of agricultural employment was downward. In 1910-1914, total farm employment averaged 12,052,000. By 1939, it had slumped to 10,740,000. It fell to 9,844,000 in 1945; then a slow climb began. The 1946 average farm employment reached 10,012,000. It has been slightly higher this year.

The decline in the number of hired hands has been from 2,892,000 in the 1910-1914 period, to 2,568,000 in the 1935-1939 period, to 2,148,000 last year. Significantly, the average monthly wage, without board, for the same period showed equally marked changes. In the 1910-1914 period, the average monthly wage, without board, was \$29.18; it had climbed only slightly, to \$34.92, by the end of 1939. By mid-1947, however, it had risen to \$114.

Total farm population, including non-workers as well as workers, shrank 3-million during war years. An estimated 27,550,000 were living on farms Jan. 1, 1947, a loss of 9.8% from 1940.

Material Handling at First U. S. Tin Plant *-built around BAKER TRUCKS*



Bagged ore, palletized at wharf, is loaded onto flat car by Baker Fork Truck. Another Baker Truck unloads and stores pallet-type crates at the plant.

The continuous operation of the Tin Processing Corporation's Texas City plant—largest tin smelter in the Western Hemisphere—built to meet our war requirements—depends on the durable and reliable service of a fleet of Baker Trucks.

Ore arrives by vessel in 100 lb. bags, which are palletized at the wharf and loaded by a Baker Fork Truck onto flat cars, for transportation to the plant. Here another truck unloads and stores the pallet type crates.

As ore is needed, a fork truck carries a crate to the mixing hopper, placing it on a raised deck, from which bags are emptied into the hopper. After crushing and purification, ores go to the smelter for reduction to metal and casting into bars. Stacks of bars weighing 4,000 lbs. are carried by truck to storage and later to box cars for shipment.

Positioning crate of ore on raised deck alongside hoppers of crushing machine.



Besides Baker Fork Trucks, the plant uses a Baker Hopper Truck with built-in scale for measuring batches going to smelting furnaces.

Management and maintenance men are enthusiastic about the trucks—particularly because of their excellent service under the difficult operating conditions caused by the relatively fine and gritty nature of the ore handled.

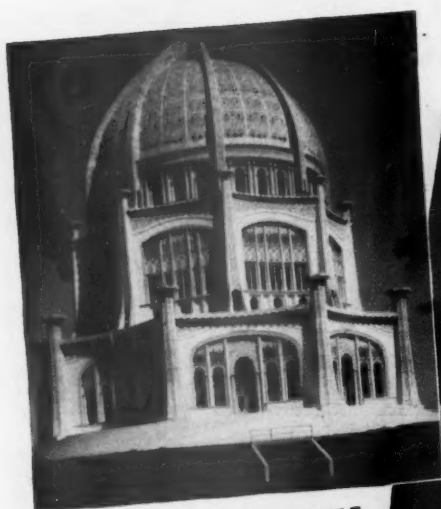
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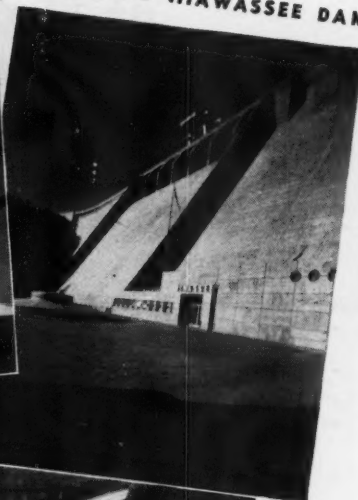
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CAUTIOUS handling of wage-hour cases ordered by Administrator William McCord

Bureau Slowdown

Wage-Hour agency admits it takes its time. Reason: Employers may now use its advice as a defense against liability.

The snail's-pace administrative operations of government agencies have been notorious so long that they are often taken for granted. The explanation has always been sought in the nature of bureaucracy. The administrators invariably insist, with great emphasis, that they don't mean to be halting.

Now, however, one key labor agency in Washington is frankly admitting that its policy is to go slow. Because that agency is the Wage-Hour Division, which polices a law covering the most important area of U. S. industry, the policy on pace has considerable importance to employers.

• **Its Advice a Defense**—The Wage-Hour Division has been moving with great caution—when it moves at all—since the enactment of the portal-to-portal law last May. It has adopted that technique because its advice on the Fair Labor Standards Act, to which the portal law is an amendment, can now be relied on by employers as a defense against liability—if the employer has acted in "good faith."

This explains why copies of Wage-Hour's pre-May 14 interpretative bulletins still are going to employers and unions with the following rubber-stamped message on the cover:

"This document represents the view of the administrator as of the time of its issuance. Because of subsequent court decisions, statutory changes, including the portal-to-portal act, or

consideration by the administrator, it may not at the present time. General interpretations of the administrator, as advised, are published in the Federal Register, which should be consulted for latest information."

Up to Employer—This would seem to leave it up to the employer seeking advice to take his chances on whether the interpretation is correct under the best law or court decision.

The chances that he may be wrong may become apparent: The latest interpretative bulletin (No. 14) was issued in November, 1940; it pertains to maximum hours and overtime compensation.

Of course, there have been more recent interpretations of the interpretations. One was issued in March, 1945, on a seafood and fishery exemption. But there haven't been many.

Won't Block Use—Actually, Wage-Hour officials don't seriously believe the rubber-stamp warning will block employers from successfully using the interpretations as evidence of their good faith." The administrator's latest interpretation may be current or ancient; but it may very well be the best advice available.

There have been 14 interpretative bulletins issued since 1938. They were numbered consecutively. Wage-Hour administrator William R. McComb has issued only one general interpretation since the new portal-pay law became effective. It revised bulletins No. 1, 2, and 5 pertaining to coverage of the wage-hour law.

Throw Away Stamp?—The other 11 bulletins are still outstanding. These are the ones which get the rubber-stamp treatment before mailing. As new bulletins are published (without numbers) the old ones will be rescinded and withdrawn. Some day, perhaps, Wage-Hour officials hint, the rubber stamp can be thrown away.

STEEL TIEUP

Hope was high at midweek for an early end to what, if it continued, could be the most crippling strike of the last months. "Real progress" in negotiations broke a deadlock between the Union Railroad Co. and the Brotherhood of Railroad Trainmen and the Brotherhood of Locomotive Engineers. Union Railroad operating employees quit jobs in an "unauthorized" walkout last week. Major contract demands had been rejected.

The line is a U. S. Steel Corp. subsidiary which services the Carnegie-Illinois Steel Corp.'s furnaces and finishing mills. The stoppage forced a virtually complete Carnegie shutdown and curtailments at Pittsburgh's non-integrated mills. Thus it further strained short steel supplies.

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Hawaii Replies in Three Tongues

Islands' industries take firm stand in ruffled labor situation, backed by civic support gained through active Employers Council. Result: No disastrous tieups, as unions accept prestrike offers.

Some American employers are beginning to think that the labor relations frontier and the country's geographic frontier are the same place—Hawaii.

A pattern seems to be evolving there in which they see some application to problems at home. A troubled labor situation, whipped up by a militant, left-wing C.I.O. union, suddenly cleared. And employers did not buy the new calm at the price of appeasement.

For over a year, strikes and threats of strikes in Hawaii have not won unions a single point or a single penny beyond what employers were willing to give.

• **Tide's Turn**—In quick succession this summer, settlements of disputes in

Hawaii's three main industries signaled a turn of the union tide:

- A strike in pineapple at the peak of the harvest season was called off by the union after five days. It was settled on terms the industry had offered early in the spring (BW—Jul.19'47,p90).
- The same union later accepted the sugar industry's offer of wage increases ranging from 5¢ to 8¢ an hour.
- And finally, the same union acceded to an employer proposal that there be no wage increases at all in longshoring. The union agreed to put off wage negotiations indefinitely.

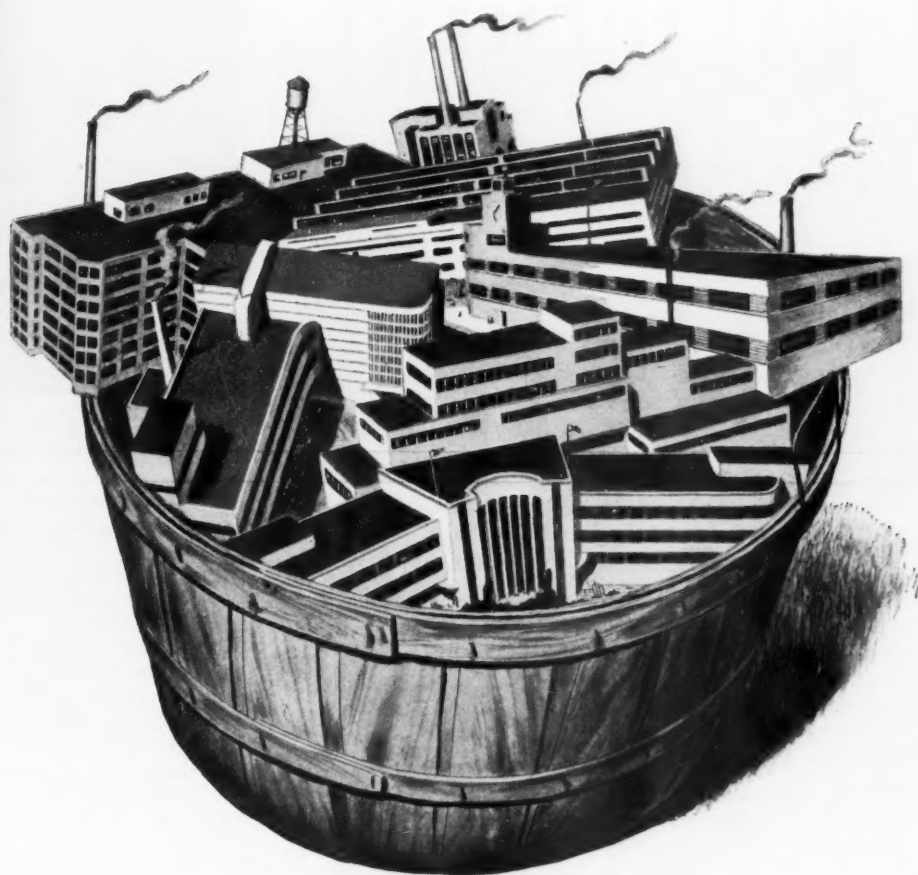
The union concerned was Harry Bridge's International Longshoremen &

Warehousemen. The union now claims more than one-third of its membership in the islands.

• **An Answer**—Up to July, Hawaiian business regarded the Bridges organization very much as it is currently regarded on the mainland's West Coast—as a violent, raging, unpredictable, and threatening ogre. Now Hawaii thinks it has Bridges tamed. And it nominates to credit the four-year-old Hawaii Employers Council, the answer of the island industry to mass unionism.

The council is managed by trained labor relations operators. Its members are 251 businesses. These include all of Hawaii's key industries, employing 65,000 of the estimated 165,000 privately employed persons in Hawaii. They pay dues to support a paid staff of 35.

Head of the council's staff is 33-year-old Dwight C. Steele, formerly executive vice-president of the San Francisco Distributors' Assn. Steele is successor to the council's first president, James R. Blaisdell, also an alumnus of the Sa-



A Bumper Crop in the South

All the forecasts indicate that the South again will harvest a "bumper crop" of new industries this year. But there's nothing strange and unusual about this!

Farsighted, clear-headed industrialists long ago discovered that the "climate" along the 8,000-mile Southern Railway System is "just right" for the quick, permanent, prosperous

growth of all kinds of factories.

Why not "plant" your factory in this industrial garden spot . . . where it will flourish and thrive . . . and where you will harvest a bumper crop of new and greater opportunities?

"Look Ahead—Look South!"

Ernest E. Horn
President



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A word to TOP MANAGEMENT on manufacturing policy

"To make it ourselves . . . or have it made for us?" confronts many an executive. It applies to parts . . . assemblies . . . even entire units.

On the one hand, "in-plant" operation keeps personnel employed . . . usually costs less (tho not always) and makes better supervision possible. But if it calls for plant expansion or excessive tooling it may entail permanently increased overhead . . . an inevitable bug-a-boo if retrenchment becomes advisable.

Share-the-Risk

"Outside contracting" presents some problems, too . . . remote supervision . . . deliveries to integrate with your own assembly lines. But contracting some of your output may relieve the pressure on your own facilities—may shorten the time to ultimate shipment and billing—something to consider in the light of capital tied up in work-in-process.

And if your sub-contractor knows his business, the problems of inspection and timing can become even a pleasurable routine. He carries part of your burden—both mental and overhead. His tooling costs are, surprisingly, apt to be less due to the nature of his facilities.

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STRATEGIST of the Hawaii Employment Council is its president, Dwight C. Steele.

Francisco Distributors' Assn. Steele is carrying on the Blaisdell policy.

• **Scope**—The council goes farther than the industry-wide associations prevalent on the mainland. It is territory-wide, brings all Hawaiian industries together in a common forum broader than the broad unions with which it copes. Industries are not bound by the decision of the council. But so far they have managed pretty well to abide by them voluntarily.

As one wedge the council has negotiated into all the labor contracts of members three clauses providing for strikes and no lockouts. These clauses have been interpreted to give business the right to order nonstriking employees through picket lines.

The A.F.L. charged that insistence on these clauses was an unfair labor practice, destroying rights guaranteed in the Wagner act. It appealed the practice to the National Labor Relations Board with a recommendation from the trial examiner supporting the A.F.L. But the charge is expected to wither on the vine under the Taft-Hartley law.

• **Stiffened Policy**—The present industrial peace in Hawaii has seen the advent of a new policy: the abolition of "horse trading" in labor negotiation. Industry has stiffened. It has made its offer first, and has stood by it.

The eight pineapple companies were ready to sacrifice most of a \$65-million crop rather than increase their 10¢ hourly wage raise offer. Council representatives stated the industry's position firmly. The union was convinced it was no sham. Thus confronted, the I.L.W.U. came back to work after five days of idleness and took the 10¢.

The I.L.W.U. also accepted full responsibility under the Taft-Hartley act. It agreed to a no-strike clause—despite the still fresh example of the coal con-

dict and a contrary over-all union policy.

Terms Accepted—Peaceful "settlements" of one kind or another quickly followed in the sugar industry, on the waterfront, and in other industries. In some of these, A.F.L. was negotiating. In some, work simply went on without contract but there was no strike talk.

The same policy had marked earlier negotiations, although less dramatically because the stakes were lower: I.L.W.U. threatened a strike at Hawaiian Tuna Packers, Ltd. An A.F.L. union threatened a strike against the Honolulu Construction & Draying Co., Ltd. Both negotiations dragged on. But in the end, the unions accepted prestrike terms.

Bid for Public Support—In addition to its firmness in negotiation, the council has bid strongly for public opinion support. In the pineapple strike the Employers Council presented facts and figures in ads, news stories, radio talks. Pineapple wages were compared with agricultural and cannery wages on the mainland. It was shown how they had kept pace with the cost of living in Hawaii.

The council also addressed pineapple workers directly with material prepared in three languages—English, Japanese, and Filipino (picture, page 104). When the union tried to call the strike a "lock-out," workers were given paper "keys" to the plant to stress that work was available.

How It Worked—Public opinion was largely with the industry in the pineapple dispute. But the strength of a good publicity appeal had an even more effective demonstration (under council leadership) a year ago. At that time A.F.L. threatened a general utilities strike in Honolulu (BW—Aug. 17 '46, p. 44)—largely in protest over the three "no-strike" clauses.

The emergency was genuine. The council enlisted the aid of Honolulu's two big dailies. (The unions claimed that the council controlled the press.)

"Tragedy Faces Honolulu," said the Honolulu Advertiser. "All Oahu Faces Breakdown," warned the Honolulu Star-Bulletin.

Result—The radio joined in. In vivid, unrelenting detail the public was told that a general utilities strike would cost lives, spread disease, stop sewage pumps, tie up hospitals, shut down police and fire warning systems.

The next day the A.F.L. announced its strike was off for at least 50 days. Three days later it dropped its threat entirely.

Groups Join—The Employer Council has also culled the support of civic groups aroused by irresponsible union acts:

"We, the Women," organized in face of the utilities strike threat, has vocally expressed housewife opposition in later disputes. The housewives once

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got an A.F.L. leader to one of their meetings and gave him a bad time.

• The Honolulu Chamber of Commerce has called emergency meetings to rally business support for resisting major strike threats.

• The Honolulu Elks have swung into a campaign against communism. One of their targets: the left-wing I.L.W.U.

• Research—Council President Steele is loath to assess the relative importance of the three main subdivisions of the council—research, negotiation, and public relations. The research effort has been impressive; it has fed loads of

fodder to both the other subdivisions.

For both the pineapple and sugar labor crises this year sizable booklets of previously unassembled data were compiled. They detailed the why and wherefores of the industry offer.

• What Next?—The current breathing will end in early 1948. Then, there will be wage openings or contract renewals in all three major Hawaiian industries—sugar, pineapple, and longshore.

Then the council will be put to another test. If it can meet it successfully the "Hawaii Plan" will almost surely produce some mainland offspring.



PRODUCER TO CONSUMER: Plant gate sales stretch labor dollars, up farmers' profits

**U. E. Joins Farmers
In Food-Cost Attack**

Unions have been growing increasingly vocal lately in their attacks on soaring living costs. Particular target has been what labor terms the "excessive price spread" between farm prices and consumer prices.

C.I.O.'s left wing has spearheaded the attack. Last week the United Electrical, Radio & Machine Workers, always on the alert for practical, eye-catching demonstrations, came up with a bright idea.

• Middlemen Hit—A recently organized local of the Farmers Union in Vineland, N. J., was conducting a private vendetta against commission merchants. U. E. proposed a joint demonstration of the cost to consumers of "profiteering middlemen." Ten farmers loaded a truck with 400 crates of tomatoes, peaches, and other farm products. U. E. spread the word among 3,000 members at the Westinghouse Meter Co. plant in Newark that produce was going to

be on sale at "right" prices at the plant.

• Two-Way Profit—It was a sellout for the farmers in 30 minutes. While prices were an estimated 40% more than the bid price on the produce market, they were hardly one-third of the going retail price. Both farmers and consumers profited, according to Farmers Union and U. E. officials. They announced hopes that the "highly satisfactory" program could be expanded to all major U. E. and C.I.O. plants.

There are, however, some big obstacles to be overcome if direct farmer-consumer marketing is to grow. Farmers admittedly did not price products high enough to cover the additional labor costs or the other expenses and hazards involved in direct marketing.

And although U. E. salvaged the feelings of independent storekeepers for this one demonstration against middlemen's profits, the union will find it hard to justify a continuing program to this important bloc of small businessmen. Currently, U. E.—eyes on public support in political and economic drives in 1948—does not want to risk their enmity.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

SEPTEMBER 13, 1947

SERVICE

The Paris version of the Marshall Plan will be out next week.

Western Europe will ask the U. S. for at least \$20-billion over the next four years.

This is regarded as the minimum to put the 16 Marshall-Plan nations and western Germany back on their feet.

Business Week's representative in Paris reports that some of the basic needs stack up this way:

Coal: 40-million tons in 1948, dropping to 6-million in 1951.

Grains: 30-million tons each year.

Meat: 1.3-million tons in 1948, rising to 2.4-million in 1951.

Fats and Oils: 1.6 million tons in 1948, rising to 3.4-million in 1951.

Sugar: 2.3-million tons in 1948, rising to 4.1-million in 1951.

Fertilizer: 200,000 tons during each of the first two years.

Tractors: 12,000 heavy and 14,000 light in 1948, dropping to zero in 1951.

The coal figures look low. Western Europe is getting about 60-million tons of U. S. coal this year.

But the Paris planners are figuring that shipments of coal from Britain, Germany, and Poland will make up the difference.

When it comes to equipment, such as tractors, the idea is to import heavily from the U. S. only at the beginning. Production in Britain and the Continent is supposed to rise fast.

The Paris report won't go in for any grandiose schemes for intermeshing the economies of the 16 Marshall-Plan countries.

The customs-union idea is being foisted off on a study group.

Only one big cooperative project will be pushed—a four-power Alpine hydro development. This will take place in France, Italy, Switzerland, and Austria (BW—Aug. 23 '47, p85).

The U. S. is partly responsible for shooting at immediate objectives.

George Kennan, State Dept. planning chief, and Under Secretary Clayton told the Paris planners to shorten their sights, cut their estimates.

Specifically, they urged the following:

- (1) Make do with present equipment wherever possible.
- (2) Stabilize internal finances.
- (3) Free trade barriers gradually.
- (4) Continue the Paris group to review progress, report to the U. S.

Washington is still up in the air about handling stop-gap aid before the Marshall Plan hits Congress (page 5).

Britain, France, and Italy are the chief problems. All say they must have dollars before the end of this year.

The World Bank, the International Monetary Fund, and the U. S. Export-Import Bank have cash available.

There's been official talk in Washington about cutting the Fund loose from its present policies, turning it into a lending agency. This may come up

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
SEPTEMBER 13, 1947

at the current London meeting of the directors of the Fund and the World Bank. But neither of these, nor the Export-Import Bank, wants to go into the business of relief.

So this is how things may work out:

France will get another \$250-million from the World Bank. This will cover industrial equipment, but some food, too—on the ground that food is needed by the labor at work on reconstruction.

Italy will get the \$77-million already earmarked for it by the Export-Import Bank. More could be made available, if necessary.

Britain will have to help itself for the most part. The \$400-million left from the \$3.75-billion U. S. loan could be unfrozen. If London wants more, it can draw down its gold and dollar reserves, even dip into its remaining U. S. investments.

Until Britain's Labor government settles the Yorkshire coal strike its position will be shaky both at home and abroad. Conceivably, it might even go out of power on this issue.

It looks as if now the National Coal Board, which means the government, will have to back down to the strikers—forgetting its plans for increased output—or watch the strike bring on another fuel crisis. However you figure it, Europe's chances of getting British coal look slim.

Washington officials now admit that the International Trade Organization isn't panning out as they had planned (BW—Aug. 30 '47, p84).

But the State Dept. still aims to salvage something out of the ITO charter when the final negotiations are held at Havana late in November. And it's ready to back its belief by dangling dollar aid before reluctant participants.

It will also try to close the tariff agreements that have been stymied at Geneva. Washington hopes to get half the concessions it was shooting for.

U. S. manufacturers would like to see the State Dept. show the same zeal in backing them up on specific deals in foreign countries.

Because our diplomats didn't punch hard enough in Egypt the \$25-million Aswan Dam equipment contract has gone to Europe.

A Westinghouse-Baldwin bid was the lowest and offered Egypt the latest in American engineering techniques. But Cairo politics entered the picture in a big way and the contract was lost. A second U. S. group, which included International General Electric, got left out, too.

Sweden, Switzerland, France, and Britain are all getting cut in on the contract. The Swedes and Swiss have the orders for the turbines and generators. They're working bilateral deals, taking payment in cotton.

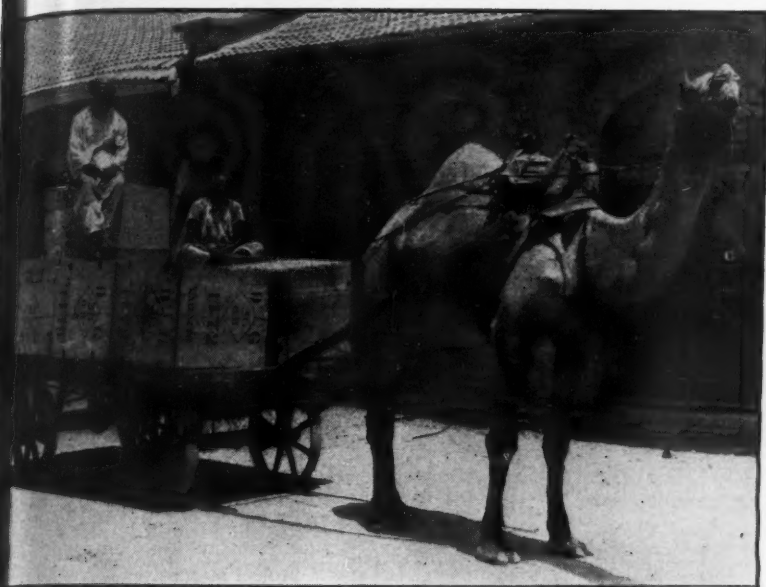
Russia is putting the U. S. on the spot in Korea. Moscow is hoping for enough storms to push the whole nation into the U. S. R.'s lap.

In his report to Washington, Gen. Wedemeyer will say that if the U. S. wants to hang on, we must:

(1) Pump \$600-million into Korea in the next two years.

(2) Shift the U. S. command at Seoul. The U. S. is fast losing popular support after countenancing oppressive police action by reactionary Korean politicians. What's needed is a topnotch civilian governor with authority over the military—or an army man with the political touch of Gen. MacArthur.

BUSINESS ABROAD



CAMELPOWER must yield to modern horsepower under Pakistan's industrial plans

Pakistan: Modernization Job

New nation's industries will have to be built up from scratch.

wants foreign capital and technical aid—but on its own terms. Some firms already bid to put in venture money and plants.

KARACHI—Pakistan, the world's west and fifth largest nation, is already preparing to launch an ambitious industrial development program. It will be based on an inflow of American and British capital and technical help. For the moment, the planners are not deterred by the Punjab massacres and the threat of more widespread armed conflict.

In shaping this development program, Pakistan is jealously safeguarding the independence it won when India was partitioned. Nationalist planners in Karachi hope to hitch onto all the foreign horsepower they can recruit. At the same time they plan to keep the reins in their own hands.

Consultants Needed—The official attitude might be represented in an advertisement like this: "Recently organized country, possessing financial reserves for immediate needs, requires expert foreign consultants to map development program. Exploiters not wanted. Apply with references to government of Pakistan, Karachi."

Detailed policy, of course, remains to be worked out. In many cases, final decisions will be put off until India and Pakistan come to terms on splitting financial assets and liabilities (BW—

Aug. 23 '47, p. 86). But for the present, the official mind is working this way:

- Pakistan lacks any modern industry worthy of the name. It is without any adequate surveys of either resources or requirements. Therefore the country must retain foreign engineering consultants to blueprint its development policy.

- Pakistan needs foreign aid in establishing and operating larger industries. A 70-30 split is envisaged for the ownership of new companies. Nationals will hold majority financial control and occupy the majority of seats on boards of directors.

- Nationalization of industries is not in the cards for the immediate future. Reasons: (1) There are none worth taking over at present; (2) All hands realize that private enterprise offers the best incentives. The only exceptions will be in public utilities, such as electric power, and in the development of new fields that offer no reasonable return to private investors but are basic to the country's expanding economy.

- **Businesses Interested**—Private capital's attitude towards foreign financial participation seems a little more generous than the government's. Some heavily moneyed interests say they're agreeable

to as much as a 45% foreign-held interest in lines where capital goods, patents, and know-how would be supplied.

Most of the private plans are for production of consumer goods. Pakistan's major deficiencies—as well as its greatest opportunities for quick profits—lie in this field. Heavy industries will have to wait for wide-scale government planning, development of a taxation policy, and decisions on state financial aid and control.

- **West: Cotton**—Basically Pakistan is two countries, separated by 1,000 miles of Indian territory.

Western Pakistan lies in the Indus River basin, has an area of 180,000 sq. mi., a population of about 24-million persons (18-million are Moslem). Not much larger than California, it is made up of the former Indian provinces of Sind, Baluchistan, the North-West Frontier, most of the Punjab. With its present heartland in the heavily irrigated Punjab it produces a third of the Indian cotton crop (more than a million bales, mostly long staple). It has an annual surplus of more than 1½-million tons of food grains.

- **East: Jute**—Eastern Pakistan occupies the eastern section of what was Bengal province, together with a small piece of Assam. It has an area of 56,000 sq. mi. and a population of 45-million of whom 30-million are Moslems. It may prove slightly less than self-sufficient in food. The main crop is jute—Pakistan's third big exportable surplus item. Production is about 1.4-million tons a year compared with India's 120,000 tons (from Hindu Bengal).

In terms of trade balances this means that eastern Pakistan controls 85% of the subcontinent's jute. And in the form of raw and processed items, jute traditionally has made up about 25% of all India's exports. The catch is that all of the jute processing plants are in Hindu Bengal, and that the Hindu port of Calcutta has been the outlet for the commodity.

- **Presses and Mills**—Actually jute is the basis of Pakistan's immediate development plans. The first need is presses to turn out the 500-lb. bales that are standard in world trade. The second need is mills to turn out jute cloth and break Hindu Bengal's hold on processing. The third need is development of the port of Chittagong (about 200 miles east of Calcutta) as a major outlet. Plans also call for the development of an alternate port in eastern Pakistan.

The presses and mills, Pakistan wants to buy—and as soon as possible. For the port development, foreign consultants are wanted to plan the expansion and construction program, and later to direct and operate it.

- **Trading Estates**—In western Pakistan the stress is on industrialization, espe-

PARIS LETTER

PARIS—The most critical problem on the minds—and stomachs—of the French today is their daily bread. It has all the earmarks of becoming political and social dynamite.

Since last spring, when wheat stocks fell dangerously low, French bread has contained 30% to 50% American or Argentine corn flour. The resulting substance is heavy, tough, and barely digestible.

During the summer some imaginative French bakers experimentally stirred into their mix a puree of mashed potatoes instead of corn. The surprising result was a white, light, tasty loaf which delighted the customers. The news spread like wildfire.

Then suddenly America cut corn exports. To make matters worse, drought reduced the French potato crop and sliced even further into the disastrously low wheat yield (only half of last year's). The price of bread was doubled and the ration cut. The Communist party immediately thundered that the government was to blame, and workers in many plants walked out in protest.

BREAD is typical of the whole French economic problem. On the one side are pervasive shortages and inflation. They sprout from reduced manpower, lack of equipment (in this case tractors), nature's inclemency, and governmental fumbling. On the other side are imagination struggling against heavy odds, with substantial—but still insufficient—American aid.

Imagination is hard to find in France. It is shadowed by the universal pessimism of the people and nearly strangled in red tape. But it's still there, as a few examples will show:

(1) Airplane plants, faced with lower demand, have conserved their work force and facilities by undertaking to make other products. From France's ample supplies of aluminum they have turned out buses, furniture, suitcases, refrigerators, fishing trawlers, and tractors.

(2) Several auto makers have designed models of aluminum and even magnesium cars, with the object of cutting gas consumption. For its new steel, rear-engine car, Renault is getting together the most modern assembly line in Europe.

(3) In rebuilding bridges French engineers are turning increasingly to

prestressed concrete (a French invention), which saves up to 90% of the steel otherwise needed.

(4) Scientific management is slowly making progress. One management engineer alone is now at work reforming 22 different organizations, including the administration of the post office and parts of the army and colonial administrations.

STRIKE headlines in the newspapers also blur the fact that most French workers have stuck to their jobs since the liberation. Americans in charge of plants here feel U. S. workers would never have continued to work in the unheated factories where the French kept turning out goods last winter. Although miserably paid and underfed, the French workman has got the battered rail and highway systems back to nearly prewar functioning. He has rebuilt the ports (temporarily also) so they handle all trade received. He has repaired 80% of the damaged factories (though not the houses). And he is turning out nearly as many goods as in 1938.

BUT THIS progress so far has depended on massive help from beyond the Atlantic. Final figures on France's 1946 balance of payments show how great the dependence has been. Payments totaled \$2,950,000,000, while receipts reached only \$900-million. The deficit of \$2,050,000,000 was met chiefly by foreign loans. Even tourist and travel expenditures showed a deficit balance of \$18-million.

In 1947 trade results have been somewhat better. But aid from abroad has dwindled.

This winter, now that exhaustion of foreign funds has brought an import crisis (BW—Sep. 6 '47, p105), there may be political repercussions. Both the Communists and DeGaulists may leave their unwilling ring-side seats and enter the fight, swinging hard. So far the odds seem against any coup d'etat. But a threatened split among the Socialists might bring the Communists back into the government. Despite progress to date only one tactic would insure the new Fourth Republic's survival this winter: a quick loan, either from the International Bank or the U. S.

cially in consumer goods lines. For a time being Karachi will be the seat of this program. The focus will be a 4,000-acre trading estate patterned after the one in Britain.

The province of Sind is spending \$5 million in the next five years on the Karachi trading estate. It will build "standard factories" in multiples of 4,000 sq. ft., lay water and power main, build rail sidings, and construct work quarters. Work will begin as soon as the stress on construction of Government offices and housing tapers off.

• **Space in Demand**—More than 100 applications for space have been received. A Firestone subsidiary wants total of 15 acres and several "standard factory" units to process 200 tons of rubber a day. Two companies are reported to be organizing to undertake auto assembly contracts.

Thirty-one textile companies and food processing companies have applied for space in the trading estate.

• **Irrigation**—Backing up this industrialization program is a tremendous irrigation project about 100 miles inland from the Indus River. Roughly 2-million acres of desert country will be irrigated and turned to rice production.

This project also represents a market for foreign technical help. Bids for or part of the \$30-million project (\$10 million for a mile-long dam and \$20 million for canals) are invited from firms of international reputation.

• **Problem**—"Pakistan won't work" has been the cry of anti-Pakistan forces for many years. Roughly stated, the problem is: Can Pakistan's agricultural products pay for the consumer goods needed immediately, and still show a surplus to cover import of capital goods required for long-range development?

Cabinet members themselves do not have the complete answer. They realize that any permanent prosperity for Moslem Pakistan will depend on a peaceful solution of the bitter controversies with Hindu-Sikh India. Meanwhile they gain comfort from the appearance in Pakistan of investment capital which runs into hundreds of millions of dollars.

Even Hindu money is appearing in the new country. Government officials hint that from the princely state of Hyderabad alone Pakistan may attract as much as \$150-million. (Hyderabad, the Moslem-ruled, Hindu-majority central India state, has so far managed to hold out as an independent kingdom.)

The market in Pakistan for this capital—to fill the industrial vacuum which Hindus have fondly referred to as "the black hole"—is immense. Pakistanis guessed that with the venture money and an increase in food exports, new fields of native enterprise will open up in another 10 years. By then, they hope, the country will be on its feet.

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CURE FOR A TRACTOR'S TOOTHACHE

A small pinion in a tractor's "innards" might cause constant complaints from users. When subjected to unusual strains in service, this forged pinion would continue to operate at the gear tooth nearest the keyway. A redesigned pinion would have meant no replacement difficulties.

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Plan for Exports to Japan

U. S. will set up corporation to resume nearly normal cotton trade with Japan. Collateral will be \$137-million "gold pot" seized by Army. It's big enough for guarantees on other commodities.

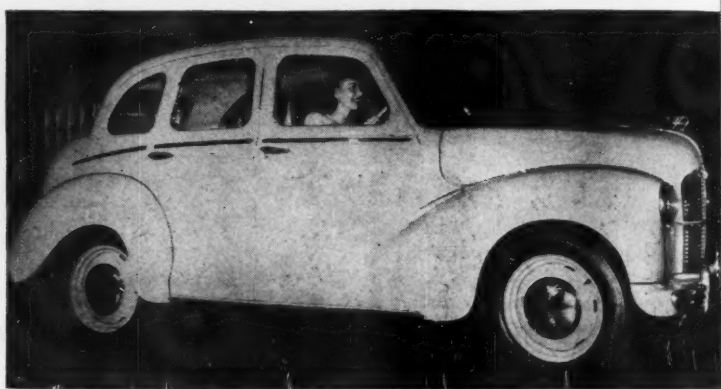
Rapidly shrinking European markets for American raw cotton due to lack of dollars (page 42) has speeded up a drive by the government and cotton shippers in another direction. Their aim: to reopen trading with Japan in an effort to put it back into its prewar position as biggest American cotton buyer.

• **Continued Negotiations**—This week representatives of the trade, government officials, and private bankers continued negotiations looking toward a semiprivate trading arrangement with Japan. At the same time, reports reached Washington that efforts are being made to build back Japan's cotton textile industry to absorb the increased flow of American cotton.

A special mission of government and trade officials in Japan recently reached

general agreement on the method of resuming somewhat near normal cotton trading with Japanese mills. Japan textile executives and Gen. Douglas MacArthur's administrative set SCAP, also agreed. If the plan is effective, it is almost certain to be expanded to other raw products subject to processing and sale, such as certain chemicals, and hard fibers.

• **American Corporation**—Briefly, plan contemplates an American corporation. It would have to have enough support the whole deal, from the purchase in the U. S. to sale of the product in Japan. To that end, American shippers have organized the National American Cotton Corp., with authorized capital of \$3-million. Office of the Export-Import Bank have promised to provide additional capital.



SALESMAN WITH SAMPLES

Austin Motor Co.'s chairman and managing director, Leonard P. Lord (right), is now in the U. S. on a personal sales junket. His aim: to boost Britain's dollar credit by setting up a dealer network here which will sell \$15-million worth of cars a year.

Off the Queen Elizabeth with him came four prerelease 1948 models designed for the U. S.-Canadian market. The light model (above), reputed to get 32 to 35 miles a gallon, is slated to sell between \$1,300 and \$1,500.

Currently, Austin exports no less than 60% of its 2,100-a-week output. Lord has a good selling point: The '48 models (with left-hand drive) will be available in November.



...want more participation by private
...interests. Total sought is \$60-

...Meanwhile, SCAP has established a
...lateral pool of approximately \$220-
...million in Japan, including the \$137-
...million Japanese "gold pot" seized by
...Army. This pool will guarantee pay-
...ment by the Japanese mills for the cot-
...ton they have processed it and sold
...finished goods.

...The pool is considerably larger than
...be needed to guarantee cotton pay-
...ments. Thus the balance will permit
...guarantees on other commodi-
...if the cotton plan works.

Million Bales—Government and
...authorities are hopeful that Japan
...take in an excess of a million bales
...American cotton during the coming
...if shipments can be kept moving
...readily. Spinning facilities were sharply
...retarded during the past year, and there
...been a virtual breakdown in the
...my plan of supply during the past
...several months. Yet Japanese mills used
...approximately 700,000 bales of Ameri-
...cotton within the last 12 months.

No plans are afoot to restore the
...Japanese cotton textile industry to its
...former scale under American occupa-
...tion. But today approximately 2.9-mil-
...lion spindles are available for operation.
...is approximately one-fourth the
...capacity. Plans are under way,
...however, to build up the number to 3.3-
...million for next year, to 4-million by
...the start of 1949. Meanwhile, competi-
...tion from rayon will be negligible. Rea-
...son: A SCAP order strictly limits the
...number of rayon spindles to 500,000.

Marketing Problem—Biggest unsolved
...problem is finding a market for the tex-
...tiles which will meet the financial
...requirements of the trade. Textiles pro-
...duced under the original Army program,
...ended to end Oct. 31, were sold only for
...dollars by the United States Commer-
...cial Corp.

The State Dept., however, is pressur-
...ing for the sale of textiles for sterling,
...dollars, and other "soft money" in the
...Pacific area. If these markets are finally
...opened, and the cotton trade is willing,
...Japan will have no difficulty finding
...ample markets.

U. S. Approval—This would also meet
...with wide approval in the American
...textile industry. It has lately expressed
...fear that if Japan is forced to continue
...sell its textiles in strictly dollar mar-
...kets, it will soon be forced to move into
...markets which are being supplied from
...American sources.

Officials participating in the almost
...daily conferences are optimistic. But
...they agree that it will be some time
...before all the problems are solved.
...Meanwhile, the Commodity Credit
...Corp. has started another interim buy-
...ing program to replenish badly depleted
...cotton stocks in Japan.

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CHARLES C. MOSKOWITZ,
Vice President & Treasurer

THE MARKETS

(FINANCE SECTION—PAGE 1)

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	145.2	150.0	150.7	140.9
Railroad	41.7	42.9	42.8	47.6
Utility	73.9	75.7	75.7	72.8
Bonds				
Industrial	121.9	122.6	124.0	123.7
Railroad	109.4	109.8	110.7	115.5
Utility	113.8	114.1	113.7	115.3

Data: Standard & Poor's Corp.

Investors Still Confused

Investors and traders alike are still trying to find out whether stocks at current levels are a good "buy" or "sale." New York Stock Exchange trading totals, were proof that most in those groups (who recently retired to think things over) find it hard to decide on a course of action.

The Big Board's daily turnover has not neared the million-share mark in some time. Recent daily sales have hovered between 600,000 and 800,000 shares.

• **Gazers Disagree**—Such confusion, however, is easy to understand: Even Wall Street's ablest crystal gazers have not been unanimous on the question in their recent market letters.

Excerpts:

• "The market remains on the defensive, with possibilities of some further selling before definite support is encountered."

• "Our reasoning is that higher, rather than lower, prices are justified."

• "Large scale buying should be awaited until the list develops vigor."

• "Selected equities are, in our opinion, in a broadly undervalued area."

• Investors should "continue to hold only a relatively light position in common stocks."

• "One of the cheapest things in which the public can place funds today is good income-bearing equities."

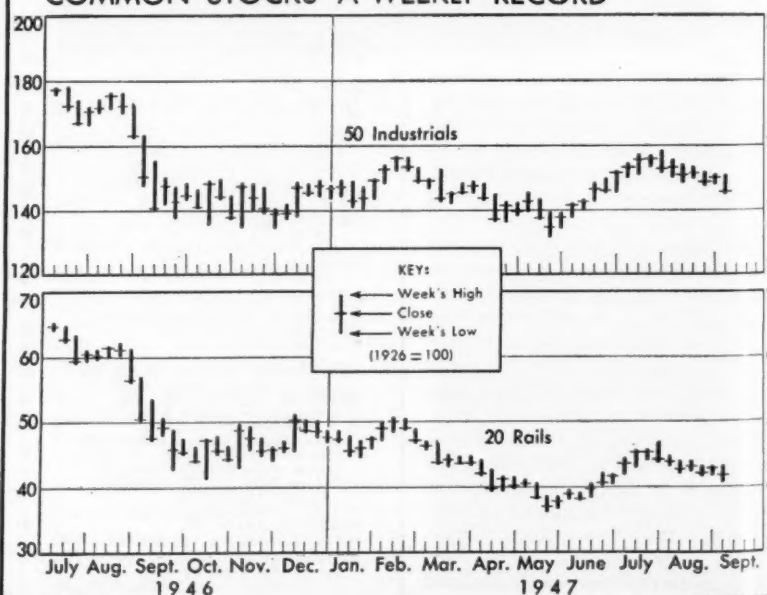
• **Reaction to Foreign News**—The cause of much uncertainty, has been the foreign situation. And near-term unfavorable effects of foreign news on the market will continue to overshadow possible favorable angles on the domestic scene—at least until some temporary lull of problems abroad can be found.

But the foreign news isn't the only factor causing today's worries—despite claims of the Street's bulls. More and more, the investing public is beginning to worry about the domestic situation.

• **Inflation**—Here is what is worrying investors: They think today's greatly inflated prices and wages spell subsequent corporate trouble despite all the earnings. And why wouldn't they? They have seen booms based on high prices and kiting corporate profits many times before. And they have learned the hard way that such "prosperity" is usually ephemeral.

Of course, those investors who feel this way could be wrong. As we have, however, they are not convinced (as they were in 1928 and 1929) that this time it's going to be different. That's why so many of them have lately been

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

© BUSINESS WEEK

Private Placements: A Recent Sampling

Amount	Issue	Borrower	Purchaser
16,500,000	20-year 2½% mtge. bonds...	United Gas...	Institutional group
15,000,000	25-year 3½ debentures...	Armour...	Insurance company group
20,000,000	30-year 2½% mtge bonds...	Penn. Power & Light...	"
15,000,000	7-year serial notes...	Worthington Pump...	Institutional group
15,000,000	20-year serial loan...	American Stores...	Metropolitan Life
12,000,000	35-year 2½ debentures...	Hartford Elec. Light...	Institutional group
10,136,000	Equipment Trust Certificates	General American Transp.	"
10,000,000	9-year 1½% serial notes...	Borden...	Equitable Life
10,000,000	20-year 2.8% debentures...	St. Regis Paper...	Institutional group
7,000,000	2½% and 3½% serial notes...	Walter E. Heller...	"
5,500,000	2.95% loan...	General Aniline & Film...	Metropolitan Life
5,500,000	15-year 3½% mtge. bonds...	Donnacona Paper...	Institutional group
4,500,000	3½% notes...	Portland Gas & Coke...	"
3,000,000	15-year 3½% notes...	Eversharp...	Metropolitan Life
3,000,000	15-year 2.9% notes...	Thos. A. Edison, Inc...	Prudential Life

as happy to sit on the sidelines and watch the situation objectively. The repercussions from the foreign situation are being felt in places other than the stock market these days. The Institutional Bank bonds sold at par in (BW—Jul. 12 '47, p. 73) are also being sold. The 25-year 3s, which jumped 103½ after their offering, are now selling at less than 101% of par. The year 24s which sold for as much as 104% of par can be bought below 100%.

New-Issues Market Test

As Wall Street's new corporate issues market fully recovered from July's severe shock of indigestion (BW—Aug. 2 '47, p. 7)?

As the subsequent lull in underwriting activity so swelled the amount of untested funds that important buyers now no longer afford to engage in the hunt?

No Answer Yet—These questions still can't be answered definitely. But the answers may be available soon. This week corporate borrowers and underwriters started to test, on a large scale, the market's absorption qualities.

Here, for example, is a list of new issues that were scheduled for offering during the week:

- \$60-million of 35-year Detroit Edison mortgage bonds;
- \$40-million of 20-year Tennessee Gas Transmission bonds plus \$10-million new preferred stock;
- \$10-million of Florida Power & Light preferred;
- \$10-million of General Telephone preferred;
- 22,416 shares of Atlantic City Electric common (expected to be offered at \$21 a share).

In Good Shape—On the surface at least the corporate new issues market would appear to be in pretty fair shape. Through intensive selling efforts in recent weeks (and often via a lowering of the original offering price) dealers generally have been able to rid them-

selves of the large unsold portions of earlier deals that had had them more than a bit worried. And the underwriting trade, Wall Street says, has finally learned that it doesn't pay to fight too strenuously even for outstanding issues at competitive bidding contests. (Such efforts may build up prestige. But too often lately winning a prized offering has assured the winner a monetary loss.)

• **No Guarantee**—Even those promising factors, however, don't guarantee that last July's buyers' market won't continue in evidence in the weeks ahead. After all, the important purchasers of new issues are just as well aware as underwriters that a big backlog of financing deals has been building up in recent weeks, and that coming weeks will see a lot of new offerings.

The utility industry alone, for example, is known to have some \$300-million of new-money deals ready for almost immediate consummation. A fairly heavy volume of rail-equipment financing is expected to hit the market soon, too. And any appearance of strength in the new issues market would start in motion many pieces of industrial financing, now being held up mainly because of the poor showing of so many recent offerings.

• **Preferred Fiascos**—So far as preferred stock offerings are concerned, evidence has been piling up that institutional buyers have lost their taste for such holdings as investments. Disgusted by the abnormally low yields offered by gilt-edge bonds, they were lured into preferred issues last year on occasion. But the experiment didn't turn out so well—particularly where less-than-top-grade preferreds were concerned. Many such issues are now selling at levels sharply below their original cost.

Another factor might also be kept in mind. The insurance companies haven't been letting all their incoming cash pile up. Instead, they have been putting it to work by aggressive buying of corporate obligations, direct from borrowers (box, above).

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THE TREND

"IN OTHER MEN'S SHOES" AND VICE VERSA

Our contemporary, the London Economist, remarks that "American opinion should be warned that over here, in Great Britain, one has the feeling of being driven into a corner by a complex of American actions and inconsistencies which, in combination, are quite intolerable." The observation, made in the course of a discussion of Britain's failure to maintain sterling-dollar convertibility, leads to the suggestion that we Americans should "above all try to realize what it feels like to be in other men's shoes." Otherwise, the Economist ominously suggests, "British willingness to offer genuine cooperation in building the sort of world Americans want" may evaporate.

At all times a useful exercise, the effort to see ourselves as others see us is particularly happy if it works both ways. Hence, we shall first indicate how, as seen by the Economist, the British feel toward the U. S. as a result of the convertibility debacle, which was also in considerable measure the debacle of the Anglo-American loan. Then, in the interest of full reciprocity, we shall indicate how, as we see it, American opinion toward Britain has been affected by the same development.

- The Economist says that "the loan was far too small when it was made, as the British pointed out at the time. The conditions attached to it were unworkable, as was also pointed out at the time." One major reason the loan was too small, the Economist bitterly notes, was that the United States had, through the Lend-Lease agreements, hamstrung Britain's exporting (by permitting no export of products containing Lend-Lease materials) and thus increased her need of foreign financial aid.

Among the unworkable provisions of the loan agreement, the Economist cites "the obligation of convertibility and nondiscrimination" imposed upon Britain. Coupled with the fact that "the American balance of payments has got out of control," and uncontrolled dollar prices have soared, it is remarked that these obligations "have brought the British back to Washington earlier and in worse plight than was necessary."

- As things have turned out, it is easy to understand how the British can, without too much trying, feel harshly set upon by the arrangements made with the U. S. for war and postwar economic aid. It is even easier when one stresses, as the Economist does not, the fact that Britain's present plight is in large measure the result of an all-out war effort in a common cause.

From the American point of view, however, the arrangement for economic aid to Britain has an altogether different complexion than that portrayed by the Economist. Starting with the Lend-Lease agreement, would it not have been positively provident for the U. S. to send supplies without cost, and then make no provision that they not be used directly in the war effort? For the fact is, to the very extent such supplies went into exports,

Britain's own direct contribution to the war effort would have been lessened.

Coming to the Anglo-American loan agreement, it is true that John Maynard Keynes, the chief British negotiator, said that it would have been better to have \$5-billion instead of \$3.4-billion. But it is an old American (and British) custom for a negotiator to claim he got less than he should have had. Again the fact is that Lord Keynes told his countrymen that, in his highly respected judgment, the loan would do the job of meeting Britain's dollar needs, and still permit the sterling-dollar conversion which collapsed only five weeks after it started.

Since that judgment was expressed, Britain has had much more than her share of hard luck (including terrible breaks in the weather). Americans have a ready understanding of bad breaks of that sort, and a strong disposition to take account of them generously. In the case of the sterling-dollar conversion arrangement, however, Britain's fiscal managers were confident that they could handle it in stride, and suggested no special consideration.

- It now develops that the British fiscal managers grossly misjudged the magnitude of their conversion problem and also that they were technically incompetent in handling it. For example, the loan agreement provided that the free sterling-dollar conversion, to start on July 1, should be limited to "current transactions." Nonetheless the Financial Times of London reports that those in charge permitted "current transactions" to be "distorted" to cover dollar payments for months and months ahead.

This unnecessary wastage of Britain's dollar balance came after government bungling had caused much other dollar wastage. In the view of the Economist itself, reported Aug. 2, about half of Britain's dollar troubles up to that time had originated "either in the over-heavy political and military commitments the British people have undertaken, or else in the muddled and distorted state of our domestic economy." The economy, be it noted, operates under the Labor Party's management.

- In our view, it would be hard to conceive of a much greater international disaster than the dissolution of our partnership with Britain—which the Economist envisages as possible if we continue to seem to be tightening the economic screws on our partner. We are sure we reflect the dominant American view, in a desire to have Britain receive all the necessary economic help we can give.

However, we feel that on the receiving end of this help we are entitled to have competent management. That Britain clearly has not been providing of late. Under such circumstances, we find some difficulty in translating the unmistakable results of British governmental bungling into manifestations of short-sighted and stupid overreaching on our part. We like this idea of getting into the other fellow's shoes. But we wear them, too.

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